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MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

ANNUAL REPORT

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*Montana Department of Natural
Resources and Conservation*

MISSION STATEMENT

To help ensure Montana's land and water
resources provide benefits for present
and future generations.

GUIDING PRINCIPLES

1. We obey the law.
2. We tell the truth.
3. We follow through on commitments and are accountable for our actions.
4. We believe in being fiscally responsible for the taxpayer's money.
5. We invite the public to participate in our actions and decisions.
6. We provide prompt and courteous service to all our customers.
7. We value and trust one another and strive for a healthy and productive work environment.



Montana Department of Natural
Resources and Conservation

Annual Report

Fiscal Year 2003

JULY 1, 2002, TO JUNE 30, 2003

1625 Eleventh Avenue • P.O. Box 201601 • Helena, Montana 59620-1601
Phone 406 444-2074 • Fax 406 444-2684 • www.dnrc.state.mt.us

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DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION



JUDY H. MARTZ, GOVERNOR

1625 ELEVENTH AVENUE

STATE OF MONTANA

DIRECTOR'S OFFICE (406) 444-2074
TELEFAX NUMBER (406) 444-2684

PO BOX 201601
HELENA, MONTANA 59620-1601

Dear Reader:

Welcome to the annual report of the Department of Natural Resources and Conservation (DNRC). Our mission is "to help ensure Montana's land and water resources provide benefits for present and future generations." This annual report covers DNRC's programs and accomplishments during Fiscal Year 2003 (which ended on June 30, 2003). It was a challenging and extremely productive year for the department.

Some of the highlights from this year's report include the following.

- DNRC developed a training program whereby employees have access to training using compact discs and their office computers. This program has afforded employees more training opportunities, with no travel or registration costs.
- The Renewable Resource Grant Program provided a \$100,000 grant to the Milk River Joint Board of Control for the rehabilitation of the St. Mary siphon. The siphon is an integral part of the Milk River Project and was constructed to divert 150,000 acre-feet of water per year from the St. Mary River and transfer it 38 miles to the North Fork of the Milk River. These funds were matched by \$80,000 from the water users.
- The Volunteer and Rural Fire Assistance Programs provided assistance to county fire agencies for equipment, training, and fire prevention materials. The total assistance available in Montana this year exceeded \$1.1 million through the National Fire Plan.
- The Board of Oil and Gas Conservation spent \$476,998 plugging orphaned and abandoned wells using, among other sources, grants from the DNRC Reclamation and Development Grants Program.
- The Reserved Water Rights Compact Commission continued negotiations with the Confederated Salish and Kootenai Tribes of the Flathead Reservation. The parties are currently negotiating an interim agreement to govern water administration on the reservation pending quantification of the Tribes' rights.
- Over \$47 million in earnings and interest from the management of state trust lands was distributed directly to the public schools and other beneficiaries.
- As Montana entered its fourth consecutive year of drought, the Water Resources Division spent considerable time helping local water users and groups mitigate drought impacts. The division completed rehabilitation of Bair Dam near Checkerboard, Montana.

I hope you will find this report both informative and useful. Please let me know how you feel we are doing and what we can do to serve you better.

Sincerely,

A handwritten signature in dark ink, appearing to read "Arthur R. Clinch".

Director, Arthur R. Clinch

INTRODUCTION

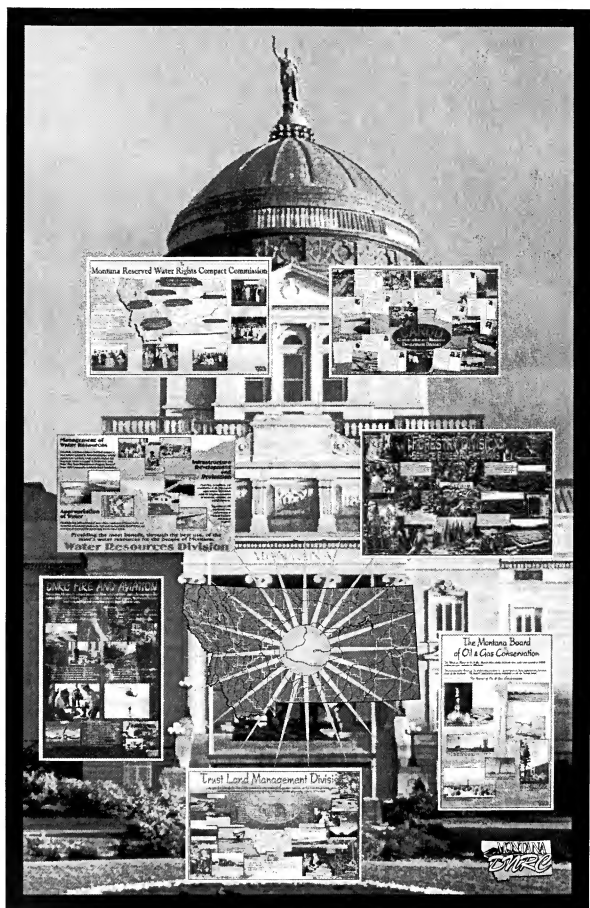


PHOTO COURTESY OF TRAVEL MONTANA

INTRODUCTION

"Helping to ensure Montana's land and water resources provide benefits for present and future generations" is the mission of the Montana Department of Natural Resources and Conservation (DNRC).

First established in 1971 as a result of the Executive Reorganization Act of 1971, the department provides leadership in managing the state's natural resources. In 1995 the department was reorganized as part of the reorganization of Montana's natural resource and environmental agencies. It is presently responsible for promoting the stewardship of Montana's water, soil, forest, and rangeland resources; for regulating forest practices and oil and gas exploration and production; and for providing or ensuring the provision of reliable, affordable electrical energy to Montana consumers.

Department Organization

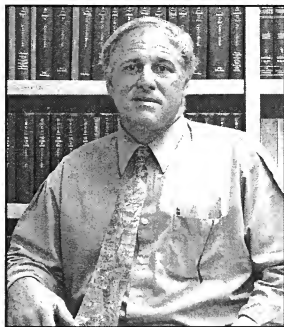
The director of the Department of Natural Resources and Conservation is Arthur R. "Bud" Clinch.

As shown in Figure 1, 10 boards and commissions are attached to the department. Seven of them — the Board of Land Commissioners, Reserved Water Rights Compact Commission, Board of Oil and Gas Conservation, Board of Water Well Contractors, Montana Grass Conservation Commission, Montana Power Authority, and Montana Agricultural Heritage Commission — have decision-making authority. The other three — the Resource Conservation Advisory Council, Rangeland Resources Committee, and Drought Advisory Committee — act in an advisory capacity only.

The department is organized into seven divisions:

- Centralized Services Division
- Conservation and Resource Development Division
- Forestry Division
- Oil and Gas Conservation Division
- Reserved Water Rights Compact Commission
- Trust Land Management Division
- Water Resources Division

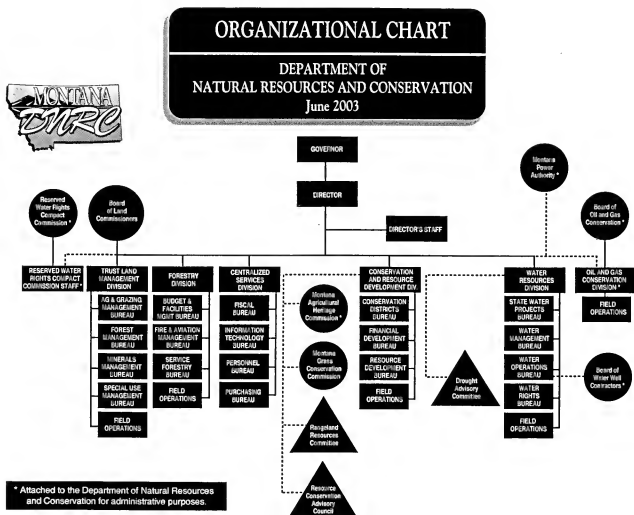
Two of the divisions — the Oil and Gas Conservation Division and the Reserved Water Rights Compact Commission — are attached to the department for administrative purposes only.



Arthur R. "Bud" Clinch, Department Director

PHOTO BY DAN BUSINELL

Figure 1



Division Duties and Responsibilities



PHOTO BY DAN BUSINELL

Ann Bauchman, Division Administrator

Centralized Services

The Centralized Services Division provides administrative and operational support to all divisions. Support services include financial management, purchasing, data processing, personnel, legal, reception, and mail. The division coordinates information services and prepares publications and graphic materials for printing. Trust revenues are collected and distributed, and ownership records for trust and nontrust lands are maintained.

Conservation and Resource Development

The Conservation and Resource Development Division coordinates, supervises, and provides financial and technical assistance to Montana's 58 conservation districts, and it provides technical, financial, and administrative assistance to public and private entities to complete projects that put renewable resources to work, increase the efficiency with which natural resources are used, or solve recognized environmental problems. The division provides administrative support to the Montana Grass Conservation Commission and the Montana Agricultural Heritage Commission (which is attached to DNRC under a Memorandum of Understanding with the Montana Department of Agriculture). The division receives advice and guidance from two other attached bodies: the Resource Conservation Advisory Council and the Rangeland Resources Committee.

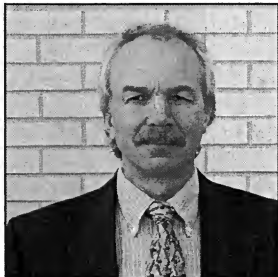


PHOTO BY DAN RUSHNELL

Ray Beck, Division Administrator

Forestry

The Forestry Division protects the state's forested and nonforested watershed lands from wildfire; provides aviation services; operates a nursery and provides shelterbelt, windbreak, wildlife habitat improvement, reclamation, and reforestation plantings on state and private lands; and regulates forest practices and wildfire hazards created by logging or other forest management operations on private lands.

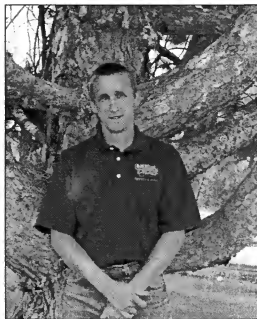
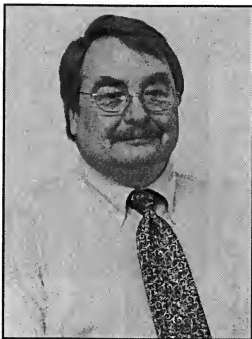


PHOTO BY CAROL HEATH

Bob Harrington, Division Administrator

Oil and Gas Conservation

PHOTO BY GEORGE HUDAK



Tom Richmond, Division Administrator

The Board of Oil and Gas Conservation and its technical support staff are attached to the department for administrative purposes. The quasi-judicial board is comprised of seven members consisting of industry representatives, landowners, and an attorney. They administer Montana's oil and gas laws and the federal Underground Injection Control Program to promote conservation and prevent waste in the recovery of these resources through regulation of oil and gas exploration and production. The board and its staff issue drilling permits; classify wells; establish well spacing units and land pooling orders; inspect drilling, production, and seismic operations; investigate complaints; conduct engineering studies; and collect and maintain complete well data and production information.

Reserved Water Rights Compact Commission

PHOTO BY DAN BUSHNELL



Susan Cottingham, Program Manager

The Reserved Water Rights Compact Commission, which is also administratively attached to the department, was created by the legislature in 1979 as part of the water rights adjudication effort. Commissioners are appointed by the governor, the attorney general, the speaker of the House of Representatives, and the president of the Senate. The nine-member commission and its support staff negotiate water rights with Indian Tribes and federal agencies to establish a formal agreement on the amount of water to be allocated to each interest.

Trust Land Management

The Trust Land Management Division is responsible for managing the surface and mineral resources of forested, grazing, agricultural, and other classified state trust lands to produce revenue for the benefit of Montana's public schools and other endowed institutions. The Board of Land Commissioners oversees the administration of the state trust land in Montana, as directed by the Montana Constitution. This board consists of Montana's top elected officials: the governor, superintendent of public instruction, secretary of state, attorney general, and state auditor.



PHOTO BY DAN RUSHNELL

Tom Schultz, Division Administrator

Water Resources

The Water Resources Division is responsible for many programs associated with the uses, development, and protection of Montana's water. The division also develops and recommends water policy to the director, governor, and legislature. The division consists of an administration unit and four bureaus: water management, water rights, state water projects, and water operations. Attached to the Water Operations Bureau is the 5-member Board of Water Well Contractors, a quasi-judicial board that can issue, suspend, or revoke licenses; promulgate rules and regulations; investigate complaints; and hold disciplinary hearings. The 21-member Drought Advisory Committee is also attached to the Water Resources Division.

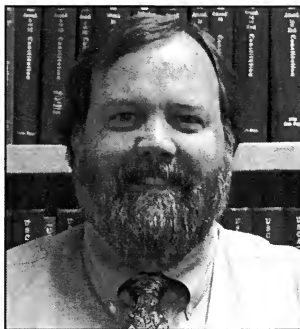


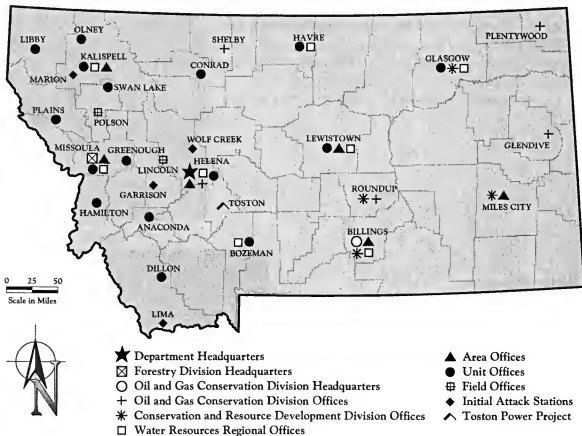
PHOTO BY DAN RUSHNELL

Jack Stults, Division Administrator

Field Offices

Although the department headquarters is located in Helena, the field operations for the department's programs are performed through field offices and personnel located in 29 different communities (see Figure 2). Included are both full time and seasonal employees from the Conservation and Resource Development, Forestry, Oil and Gas Conservation, Trust Land Management, and Water Resources Divisions.

Figure 2
Location of Department of Natural Resources and Conservation Offices



Financial Information

Table 1 presents budget and funding information for the Department of Natural Resources and Conservation for Fiscal Year (FY) 2003. Information on two of the department's funding sources, the Resource Indemnity Tax and the Coal Severance Tax, can be found in Appendix A.

Table 1 Department of Natural Resources and Conservation Budget and Funding in Fiscal Year 2003	
Category	Amount
EXPENDITURES	
Personal Services	\$24,575,363
Operating Expenses	25,823,838
Equipment	592,402
Capital Outlay	335,610
Local Assistance	221,000
Grants	11,479,124
Benefits and Claims	500,000
Transfers	389,169
Debt Service	882,627
TOTAL	\$64,799,133
FUNDING	
General Fund	\$17,148,181
State Special Revenue Fund	33,295,231
Federal Special Revenue Fund	12,851,325
Proprietary Fund	998,762
Non-Budgeted Private Fund	505,634
TOTAL	\$64,799,133

CENTRALIZED SERVICES DIVISION



PHOTOS BY DAN BUSINELL AND JACK ZANTO

CENTRALIZED SERVICES DIVISION

Provides managerial, administrative support, information, computer, legal, and personnel services to all divisions of the department.

The Centralized Services Division (CSD) provides managerial and legal services to the department through the Director's Office. The division also manages all financial activities, contracting, and procurement; oversees personnel policies and functions; coordinates computer systems; performs public information and media relations tasks; produces publications and graphics materials; and provides general administrative support services. Support services include payroll, data entry, reception, and mail. Fiscal responsibilities include trust revenue collection and distribution, as well as bond and loan accounting.

In Fiscal Year (FY) 2003, six CSD positions remained vacant in response to statewide budget shortfalls and a Special Legislative Session.

Personnel Bureau

The Personnel Bureau has been involved in a number of key human resource activities. For the past year, the conversion from Pay Plan 60 to Pay Plan 20 has been closely monitored and evaluated. DNRC is making a concerted effort to complete 100 percent of the performance appraisals; at present, the agency is close to 90 percent completion. Lastly, the training effort has embraced web-based learning. Employees can enjoy a number of unique training programs without ever leaving their work units.

Purchasing Bureau

The Purchasing Bureau established a variety of annual agreements for the procurement of goods and services that allow employees to contract directly with vendors and contractors. These agreements helped reduce the number of requisitions submitted from 420 in the previous fiscal year to 303 this fiscal year. These agreements provide field personnel with cost-efficient and expedient methods of procuring urgently needed commodities and services.

Competitive solicitations exceeding \$25,000 are now listed on the Internet, increasing competition and decreasing duplicating and mailing costs. Over 350 contracts, grants, and amendments (with a total value of over \$40 million) were reviewed for legal and fiscal compliance, and contractual requirements (such as liability insurance and workers compensation coverage) were monitored.

Bureau staff are working with other employees to improve the department's Loan and Grant System. Better tracking will help to ensure contractual compliance, fiscal monitoring, and renewal timing.

Bureau staff responded to various departmental matters such as the Leased Vehicle Program and the ProCard, which is a credit card for use by state employees. The ProCard manual was rewritten and posted on the DNRC website.

The bureau completely revised the department's purchasing and contracting manual to comply with recent legislative and legal mandates and to increase its effectiveness and ease of use for department employees. This manual is also posted on the DNRC website.

Bureau staff continue to monitor and report to management on a variety of possibilities for saving costs in such matters as cell phone usage and fire-related procurements.

Information Technology Bureau

In Fiscal Year 2003, the Information Technology Bureau (ITB) continued to meet the department's needs in public information, editing, graphic design, computer support, and software development. Agency demand for ITB services was stronger than ever over the past year. The department has discovered the necessity of an effective public information program, with requests for the services of the public information officer coming from across the department. In-house editing and graphics services continue to save the agency money and provide high-quality products. New, innovative, and cost-effective ways to use computers to perform state business are continually being found.

Highlights of ITB accomplishments over the past year are listed below.

- The public information officer developed an informative and fascinating set of displays that were exhibited in the Capitol Building rotunda during the 2003 Legislative Session. The displays informed legislators and the public of the wide range of services performed by DNRC, including noxious weed control, fire suppression, and water rights management.
- The editing and graphics staff prepared several publications for legislators, including the *DNRC Annual Report for Fiscal Year 2002* and reports on the *Reclamation and Development Grants Program* and the *Renewable Resource Grant and Loan Program*.
- Over the past year, high-speed networking has become an issue in the DNRC field offices. With new, centralized systems going into production, such as the Trust Land Management System and the Water Rights System, field users are finding that high-speed network connections are essential for state business. High-speed data network connections were installed in Havre, Glasgow, Miles City, and Plains during Fiscal Year 2003.
- More in-house and outsourced software development took place in Fiscal Year 2003 than in any other year in the history of the department. The new Trust Land Management System went into production, Phase II of the Hazard Reduction Agreements System was completed, and a new Fire Protection Assessment System was developed and went into production.
- Bureau staff presented training in the use of the new Trust Land Management System to about 80 department employees in Helena, Billings, Lewistown, Missoula, and Kalispell.

Fiscal Bureau

Over 20,000 payments were processed during FY 2003 by the Fiscal Bureau, which also coordinated a variety of bond sales. One Coal Severance Tax Bond was sold, as well as General Obligation Bonds for the drinking water and wastewater programs. In addition, a General Obligation Bond was sold to provide loans to private entities for renewable resource projects.

More than 40,000 checks were received, deposited, and distributed within trust, federal, and state special revenue accounts, with total receipts of over \$200 million.

Federal Emergency Management Agency (FEMA) auditors were on-site for a few weeks to audit financial activity associated with the fires of 2000. Fiscal staff assisted by providing documentation and answering questions.

A federal accounting pronouncement, called General Accounting Standards Board (GASB) 34, required many additional accounting transactions throughout the fiscal year. Although this bulletin was first implemented in FY 2002, further work will be undertaken annually to transact the necessary entries.

Bureau personnel visited field offices throughout the state to provide training in the state's financial software, including Manager Reports; the Statewide Accounting, Budgeting, and Human Resources System (SABHRS); and Document Direct software. CSD fiscal and ITB staff also visited various field offices, in conjunction with Trust Land Management Division (TLMD) staff, to train field personnel on how to process local bank deposits appropriately.

Bureau staff transitioned the department to the Standard Budget Module in SABHRS for FY 2004. Standard budgets will assist the department with budget administration and management.

The department's FY 2004 Indirect Cost Plan was submitted utilizing a new methodology, which will apply indirect costs to total department expenditures, including contracted services. Equipment and debt service, however, will not be included in the calculation of indirect costs.

Montana Power Authority

In 2001, the Montana Legislature passed House Bill (HB) 474, which (among other provisions) created the Montana Power Authority. This seven-member citizen board was appointed by the governor to provide or ensure the provision of reliable, affordable electrical energy to Montana consumers. The board was attached to DNRC for administrative purposes and staffed by DNRC and the Lt. Governor's Office. It continued to meet until the fall of 2002. In November of that year, voters passed IR 117, a referendum to reject HB 474, and the Montana Power Authority thereby went out of existence.

CONSERVATION AND RESOURCE DEVELOPMENT DIVISION



CONSERVATION AND RESOURCE DEVELOPMENT DIVISION

Provide technical and financial assistance to local governments, state agencies, and private citizens for the conservation, development, protection, and management of the state's natural resources.

The Conservation and Resource Development Division (CARDD) helps manage natural resources and finances conservation, resource management, and reclamation activities. The division has 22 employees who administer the work of the Conservation Districts Bureau, the Financial Development Bureau, and the Resource Development Bureau. During FY 2003, all final activities related to the Montana Agricultural Heritage Program were completed, and the program was closed.

Conservation Districts Bureau

Under state law, the Conservation Districts Bureau (CDB) is responsible for assisting Montana's conservation districts and state grazing districts. A conservation district (CD) is a legal subdivision of state government that (1) develops and carries out long-range programs that will conserve and improve soil and water resources within its boundaries, and (2) encourages maximum participation by the general public and all local public and private agencies to fulfill this purpose.

The 1999 Legislature created the Montana Grass Conservation Commission to assume the department's grazing district responsibilities effective July 1, 1999. The commission is administratively attached to DNRC. Grazing districts are cooperative, nonprofit groups that set up permitting systems to aid in the management of grazing lands where land ownership is intermingled in order to conserve, protect, restore, and properly utilize grass, forage, and range resources.

CDB works with the people of Montana on these eight areas of conservation and resource management.

- Conservation district supervision and assistance
- Watershed efforts and projects
- Rangeland management coordination
- Stream protection
- Natural resource conservation education activities
- Grant and loan programs
- Resource conservation and development (RC&D) areas
- Salinity control

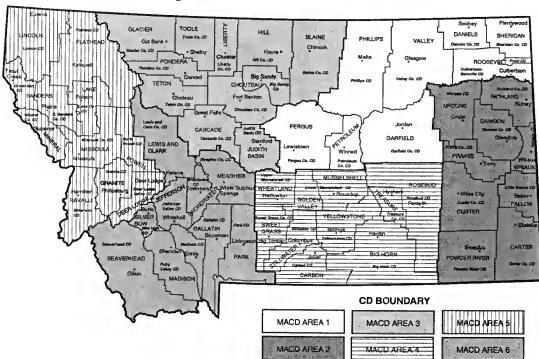
Conservation District Supervision and Assistance

The bureau provides administrative, legal, and financial assistance to Montana's 58 conservation districts (see Figure 3) to help them identify and address local natural resource concerns. In FY 2003, the bureau conducted five CD employee and supervisor workshops covering local government record keeping and compliance matters and personnel, budget, and 310 issues. Information regarding legislative changes to the open meeting law was distributed to CDs. In addition, the

materials listed below were developed, updated, or distributed for conservation district use.

- Compilation of laws pertaining to conservation districts that were changed by the 2003 Legislature
- CD employee and supervisor directory

Figure 3. Montana's Conservation Districts



Every year natural resource issues become more complex, and because of this CDs require more complex technical assistance. The 1997 Legislature authorized a legal and technical services program to provide districts with services needed to carry out their statutory responsibilities effectively. In FY 2002, a Request for Proposal (RFP) was issued for legal services for conservation districts. Two attorneys or law firms are now on retainer to provide legal services to districts on an as-needed basis. Two direct grants were also provided to CDs. Legal services were used for project review and procedural advice, contract review, 310 advice and representation, and assistance to four conservation districts that are developing a large, rural water project in eastern Montana.

The Resource Conservation Advisory Council (RCAC), which consists of seven members serving at the pleasure of the governor, meets four times a year, provides advice and assistance on conservation matters, and sets guidelines for CDB's grant programs. Current RCAC members are:

Bob Breipohl	Saco	Representing North Central Montana
Robert Anderson	Poplar	Representing the General Public
Robert Fossum	Richland	Representing Eastern Montana
Marianne Hanser	Billings	Representing South Central Montana
Vicki McGuire	Eureka	Representing Western Montana
Dave Schwarz	Terry	Representing Conservation Districts
Tom Stelling	Fort Shaw	Representing Conservation Districts

The Conservation Districts Bureau also works with the Montana Association of Conservation Districts (MACD) and the National Association of Conservation Districts (NACD) to address natural resource concerns.

Watershed Efforts and Projects

Through the capacity-building program, conservation districts have identified the need for watershed planning as a high priority goal. Conservation districts, as the local entity responsible for addressing nonpoint source (NPS) water pollution, play a key role in developing local watershed plans. CDB provides technical and financial assistance to conservation districts in support of watershed efforts. In addition, CDB participates on the Watershed Coordinating Council, a group of state and federal agencies and private organizations that coordinates programs in Montana that address aspects of watershed management.

Watershed Planning and Assistance Grant Program

The 1997 Legislature authorized the Watershed Planning and Assistance Grant (WPAG) Program. The purpose is to assist conservation districts and affiliated local watershed groups with expenses associated with watershed planning. Funds can be used for the collection of baseline resource information, facilitators, development of a watershed management plan, training, educational efforts, and incidental costs associated with watershed planning.

A total of \$144,750 was available for grants in FY 2003. Applications were received from 16 districts for 17 projects. Three of the projects were for resource assessment, and fourteen projects funded watershed groups, coordination, and/or coordinators. The resource areas included weeds, water quantity, and water quality. The size of these projects ranges from small watersheds to large basins. The projects funded are listed in Table 2.

Table 2
Watershed Planning and Assistance Grants Awarded in FY 2003

Conservation District	Project	Amount
Beaverhead	Beaverhead Watershed Group	\$ 10,000
Bitterroot	Bitter Root Water Forum	7,425
Broadwater	Southern Belt Watershed Group	3,662
Deer Lodge Valley	Little Blackfoot River Assessment	10,000
Garfield County	Little Dry Creek Monitoring	1,600
Granite	Drought Management and Coordination	10,000
Green Mountain	Pilgrim Creek Watershed Project	10,000
Jefferson Valley	Jefferson Valley Watershed Group	9,996
Lower Musselshell	Lower Musselshell River Watershed Planning	8,650
Mile High	Brown's Gulch Partnership and Planning Project	10,000
Missoula	Lolo Creek Watershed Planning	10,000
North Powell	Blackfoot Challenge General Operations	4,934
Park	Southern Crazy Watershed Group	10,000
Pondera County	Marias River Coordinator I	10,000
Pondera County	Marias River Coordinator II	8,483
Sweet Grass County	Boulder River Watershed Association	10,000
Yellowstone	Canyon Creek Weed Activities	10,000
TOTAL		\$ 144,750

The Boulder River Watershed Association (BRWA), sponsored by Sweet Grass County Conservation District, provides an excellent example of a Watershed Planning and Assistance Grant in action. BRWA is a collection of private landowners, private industry, and government agencies working together to address resource issues such as water quantity and quality, forestry/fuel reduction, and weeds in the Boulder River drainage near Big Timber. The WPAG funds provide operational funds for the watershed group to coordinate on-the-ground implementation of projects in the watershed.

Stream Assessments

Six large stream assessments have been conducted by conservation districts throughout Montana in a collaborative effort with the U.S. Natural Resources Conservation Service (NRCS) and DNRC. The assessments include:

- Yellowstone River (13 CDs in the Yellowstone River Conservation District Council)
- Lower Wise River
- O'Fallon Creek
- Big Sandy Creek
- Milk River
- Whitmore Ravine

The purpose of doing these stream assessments is to provide baseline resource information to conservation districts, watershed groups, and local landowners to further their knowledge about the priority streams in their areas and provide a basis for doing voluntary restoration projects, where appropriate.

Rolling Rivers Trailers

The Rolling River is a five-by-ten-foot utility trailer with a six-inch-deep bed that is filled with "sand" (actually, recycled plastic granules). A meandering river or two is scooped out, running from one end to the other. Small figures of buildings, animals, and machinery are placed on top. When water is turned on at the top of the watershed, it flows through the river and can be used to demonstrate a variety of water-related lessons.

Three trailers are currently operating: (1) a demonstration trailer coordinated by CDB out of Helena, (2) a trailer in northwestern Montana sponsored by Lincoln CD, and (3) a trailer in eastern Montana coordinated by Richland County CD in Sidney. During the first season of trailer operation, 16 districts made 25 presentations to 4,700 people. CDB is providing technical support to MACD to implement this program.

In the upcoming year, an additional trailer will be purchased, and the number of presentations will be increased. Training workshops and promotional/educational materials will be developed to increase the effectiveness of the trailers.

Rangeland Management Coordination

The Rangeland Resource Program has four major areas of emphasis. They include:

- Working with county range committees, conservation districts, and producer groups to foster sound rangeland management
- Encouraging coordination and cooperation between private, state, and federal entities involved in range management
- Administering the Rangeland Improvement Loan Program
- Co-sponsoring the Governor's Range Tour, Winter Grazing Seminar, and Montana Youth Range Camp

The program receives guidance from the Rangeland Resource Executive Committee, which is composed of six ranchers geographically located across the state and appointed by the governor. Current members include:

Les Gilman, Chair Alder	John Hollenback, Vice-Chair Gold Creek	Bob Anderson Culbertson
Quinn Haughian Terry	Steve Hedstrom Raynesford	Michael Lane Three Forks

In addition, an ad hoc committee of agency and organization personnel serves in an advisory capacity to the executive committee.

CD staff work to strengthen local grazing management programs by helping sponsor workshops, tours, and demonstration projects. Examples of these activities include the Governor's Range Tour, the Montana Youth Range Camp, and the Winter Grazing Seminar.

A loan program was started in 1979 for the purpose of improving rangelands in Montana. To date, 328 applications have been received for loans totaling \$4,401,664. Currently, 55 loans totaling \$863,025 are in repayment status. A typical rangeland loan project involves drilling a well and installing underground water lines to supply stock tanks. These stock tanks are usually located in areas where water is insufficient or unsuitable for livestock. The projects are sometimes combined with cross fencing and an overall grazing plan to improve the rangeland. Over 952,000 acres of Montana rangeland have been improved using funds from this program.

Grazing District Supervision and Assistance

State law provides for the creation of cooperative, nonprofit grazing districts and sets up a permitting system that aids in the management of grazing lands where ownership is intermingled. In its administration of the Montana Grass Conservation Act (grazing district law), the Montana Grass Conservation Commission advises, supervises, and coordinates the formation and operation of these grazing districts. Uniform plans that conform with recognized conservation practices are developed for the use of lands within the boundaries of the districts. The 27 state grazing districts represent 1,353 permittees and cover 10,501,070 acres of land.

The commission is composed of these five board members, who are affiliated with local grazing districts.

Bill Loehding, Chair	Ekalaka
Gary Unruh, Vice-Chair	Chinook
Larry Brence	Baker
Phil Hill	Mosby
Dewayne Ozark	Glasgow

Stream Protection

CDB provides administrative assistance, training, and legal opinions to conservation districts to help them administer the Natural Streambed and Land Preservation Act, commonly referred to as the “310 law.” Under this law, any private entity proposing a project that will alter or modify the bed or banks of a stream must obtain a permit.

Efforts undertaken in FY 2003 to improve the permitting process included distributing a project review guide for conservation district supervisors and others involved in permitting. The project review guide describes about 70 projects and contains guidance for when and where the projects are appropriate, design drawings, and construction techniques.

CDs processed 1,517 Natural Streambed and Land Preservation (310) Permit Applications in FY 2003, and CDB distributed \$97,000 to 49 CDs to help offset the cost of processing those permits. CDB has contracts with eight consulting firms to provide technical review of complex 310 applications. In FY 2003, 13 reviews were conducted.

The 2003 Legislature passed four bills that pertain to 310 activities. One bill provides a formal process for CDs to assess civil penalties and specifies that 310 disputes must first go to justice court. Another clarifies that the definition of a “project” includes the stream, its bed, and its banks – a fact often overlooked in 310 violations. The third bill outlines a declaratory ruling process, which the Montana State Supreme Court said CDs must use when determining jurisdiction.

The fourth bill, SB 381, makes the arbitration process voluntary (not mandatory, as it was before). DNRC, in consultation with MACD and conservation districts, is in the process of revising the arbitration agreement and 310 forms to comply with this new law. Very early drafts are available for review and comment.

Yellowstone River Conservation District Council

CDB has been working with 13 CDs that have joined together to address natural resource concerns along the Yellowstone River. To date, the council has made an assessment of the entire river, is working with the Montana Natural Resource Information System (NRIS) to make geographical information accessible on NRIS's website, and is conducting a geomorphic and fisheries analysis.

The work accomplished will aid CDs in a cooperative study with the U.S. Army Corps of Engineers (COE). The CDs have been collecting contributions in the form of cash and donated labor to provide the state's in-kind match in a \$2- to \$4-million study of the cumulative impacts on the river. The CDs' interest is to ensure

that (1) people who live and work along the Yellowstone have a say in the federal study, and (2) what comes out of the study is useful to CDs and other agencies. Contract negotiations between the Yellowstone River CD Council and COE have caused a delay in the original time line.

The council, in partnership with NRCS, also submitted the nation's first proposal under the new Partnership and Cooperation Program, under the new farm bill, to address resource concerns along the Yellowstone River. This proposal has not yet been approved.

Natural Resource Conservation Education Activities

This program provides grant funding and policy guidance for resource conservation education programs. The bureau assists conservation districts in sponsoring adult education, elementary and secondary school activities, and several annual events: the Envirothon, Montana Youth Range Camp, and Natural Resources Youth Camp. The program goals are to promote discussion of resource issues and provide the knowledge and skills necessary to make decisions regarding the management, protection, and wise use of our natural resources.

CDB administered a grant authorized by the 2001 Legislature to conduct the 2003 Envirothon. The 2003 Montana Youth Range Camp was cancelled due to budget cuts.

Conservation Education Mini-Grant Program

Mini-grants of \$500 each are available to educators statewide, enabling teachers to develop environmental education projects around local resource issues. The grant program encourages classroom discussion of resource conservation and environmental issues in secondary and elementary schools, by providing financial support for teacher-initiated classroom projects. In FY 2003, 21 mini-grants were funded for a total of \$9,560 and are listed in Table 3.

Small Acreage Stewardship Education

CDB is working cooperatively with conservation districts and other local groups to implement a small acreage stewardship curriculum. The major benefits of this program are:

- Providing landowners with the tools to manage their property to meet their goals and address resource concerns
- Giving local resource agencies an opportunity to contact and develop working relationships with small acreage owners

CDB has provided technical assistance and curriculum development to implement realtor and landowner workshops.

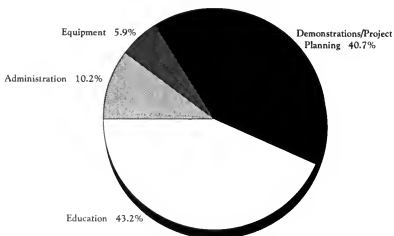
Table 3
Conservation Education Mini-Grants Awarded in FY 2003

Conservation District	Project	Amount
Bitterroot	Teller Wildlife Refuge Project	\$ 500
Carbon	Weed Tour	500
Cascade County	Plant Identification Ecosystem Equipment Purchase	500
Daniels County	Natural Resource Day 2003	450
Dawson County	Weed Seminar	500
Fergus	Global Positioning System Mapping of Brewery Flats	500
Fergus	Weather Station Purchase	400
Flathead	Forestry Expo	500
Gallatin	Outdoor Science Project	499
Jefferson Valley	Weed Education Program	469
Liberty County	Community Garden	240
Mile High	Pine Bark Beetle Field Study	280
Mineral County	Conservation Day	330
Pondera County	"Boone and Crockett" Outdoor Field Day	486
Pondera County	Outdoor Classroom	460
Pondera County	Watershed Education Program	500
Ruby Valley	Globe and Water Quality Exercise	500
Teton	"Creeks and Critters" Outdoor Field Day	500
Toole County	Globe Atmosphere Project	466
Wibaux	Agricultural Education Program	480
Yellowstone	"Teaching Relationships; Encouraging Knowledge" Camp	500
TOTAL		\$ 9,560

Grant Programs

The bureau administers four grant programs. The Conservation Education Mini-Grants and the Watershed Planning and Assistance Grants were discussed earlier in this chapter.

Figure 4
Allocation of Grant Funds for Conservation District
Projects in Fiscal Year 2003



Conservation District Project Grants

The Conservation District Project Grant Program was established in 1981 to provide funding for CDs' lawful duties and responsibilities. The program funds a variety of CD activities such as stream bank protection, erosion control, new conservation technology demonstrations, soil and water conservation projects, youth and adult educational activities, and conservation equipment rental programs. In FY 2003, \$335,604 was granted to CDs for various projects. All projects funded in FY 2003 are listed in Table 4, and the allocation of funds is shown in Figure 4.

Table 4
Conservation District Project Grants Awarded in FY 2003

Conservation District	Project	Amount
Beaverhead	Snowline Riparian Monitoring	\$ 10,000
Broadwater	Weed Education	10,000
Carter County	Equipment for Thompson Creek Project	8,000
Cascade County	2003 Winter Grazing Seminar	6,425
Cascade County	Orthophoto Quads	13,000
Cascade County	Sun River Restoration	5,086
CDB	Education Mini-Grants	9,560
Deer Lodge Valley	2002 Governor's Range Tour	8,350
Deer Lodge Valley	Clark Fork Conservation Reserve Enhancement Program	8,986
Fergus	Conservation Cleanup	5,600
Flathead	Clark Fork Task Force	15,000
Gallatin	2004 Noxious Weed Calendar	7,875
Gallatin	Dairy Waste Anaerobic Digestion	5,589
Green Mountain	Adult and Youth Education	3,455
Jefferson Valley	Jefferson River Watershed	4,000
Jefferson Valley	Teacher Weed Training	2,236
Judith Basin	South Fork Monitoring and Restoration	7,500
Lewis and Clark	Ten Mile Creek Bank Stabilization	2,100
Liberty County	Conservation District Education	881
Liberty County	Conservation District Employee Training	2,996
Liberty County	Global Positioning Satellite Equipment Purchase	6,343
Lincoln	Carbon Offset Agroforestry	15,000
Lincoln	Eureka Fiberfest	7,000
Lincoln	Firewise Landscaping Demonstration	7,000
Meagher County	Smith River Irrigation Recharge	5,000
Meagher County	Smith River Recharge and Hydrology	10,000
Park	Anglers Against Weeds Program	10,000
Park	Irrigation Efficiency	5,142
Park	Ranch Profitability	4,129
Park	Watershed Range Monitoring	10,000
Park	Watershed Symposium	10,000
Phillips	2003 Range Days	3,000
Phillips	Global Information System Equipment Purchase	9,967
Pondera County	Fabric Layer Purchase	3,000
Pondera County	Weather Station Purchase	500
Richland County	Carbon Sequestration Workshop	10,000
Roosevelt County	Big Muddy River Check Structures	10,000
Roosevelt County	Dry Prairie Rural Water Association	8,900
Roosevelt County	Fort Peck Irrigation Assessment	7,900
Roosevelt County	Irrigation Water Management Demonstration	4,200
Roosevelt County	Technical Assistance for Pumps	6,878
Ruby Valley	Spawning Channel Restoration	2,700
Sheridan County	Water Quality Monitoring Equipment	8,298
Sweet Grass County	Weed Project	472
Various CDs	Administrative Grants	11,426
Various CDs	Education Project Travel Reimbursements	7,110
Yellowstone	Canyon Creek Restoration	15,000
TOTAL		\$ 335,604

Administrative Grants

In FY 2003, the bureau distributed \$228,000 from the General Fund and the Coal Tax Fund as grants to 39 CDs whose county mill levies are inadequate to support district operations. These grant funds are for administrative purposes only and are used for administrative salaries and general operating expenses.

Information on the Coal Severance Tax and the Resource Indemnity Tax (RIT) is presented in Appendix A.

Resource Conservation and Development Areas

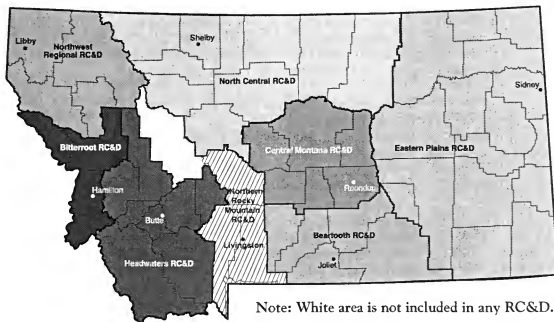
In a cooperative effort with NRCS, the bureau has taken a lead role in assisting in activities of the NRCS partnership coordinator and the Central Montana RC&D Area. The partnership coordinator is currently helping develop key issues and providing direct assistance to the RC&Ds in Montana (see Figure 5).

The Central Montana RC&D was involved in the following activities.

- Sponsored seven First Time HomeBuyer classes and one HomeBuyer Jamboree
- Served as ad hoc advisor to and board member of the Montana Home Ownership Network, a partnership of Montana nonprofit and private corporations, government agencies, and residents, whose goal is to increase home ownership among low-income families
- Completed a Housing Planning Grant Application for Musselshell County
- Attended Lower Musselshell Work Group meetings, the goal of which is to match resource needs to farm bill funding
- Provided public information coordination to the proposed Coal-Fired Power Plant Project
- Sponsored a Forestry Education Day Project for elementary students in Fergus County
- Assisted Snowy Mountain Development Corporation with final updates of the Comprehensive Economic Development Strategy for the RC&D Area
- Completed a Federal Emergency Management Agency Grant Application for the Beaver Creek/Cottonwood Rural Fire District
- Served as a board member of the National Carbon Offset Coalition
- Served as an advisor to the Central Montana Education Outreach Center Project
- Served as an advisor and provided coordination to the \$1.1 million Video Network Coordination Project of the Eastern Montana Education Telecommunications Consortium (composed of 17 schools)
- Completed three county and one municipal grant applications to the Montana Coal Board totaling over \$700,000
- Provided coordination for the Musselshell Valley Regional Municipal Water Project's \$300,000 test well

The bureau also administers a \$50,000 appropriation for the Community Project Startup Grant Program, which is delivered through the Eastern Plains RC&D. The RC&D approved six grants totaling \$20,000 in FY 2003.

Figure 5
Resource Conservation and Development Areas in Montana



Salinity Control

The Montana Salinity Control Association (MSCA) is a satellite program for conservation districts established to reclaim and prevent saline seeps and other agriculturally-caused water quality problems, on an individual farm and/or watershed basis. MSCA originated in 1979 in 9 counties and now serves 34. MSCA is partially funded from mineral taxes administered by CARDD. Through the Conservation Districts Bureau, MSCA received \$207,500 in FY 2003. Additional funding is generated through landowner and user fees for projects. Outside funding has been derived since 1983.

Conservative estimates indicate that over 300,000 acres in Montana are affected by salinity problems. MSCA has developed individual reclamation plans for 928 sites with 118,896 planned acres to address 15,440 salinized acres that were no longer productive. Nine salinity-based watershed projects ranging in size from 4,000 acres to over 625,000 acres are in progress or have been completed. Significant planning has been done and will continue in these watershed projects. With the preliminary work completed on all nine watersheds, additional projects can be incorporated to complement the overall benefits. Each watershed project has a local advisory group that contributes funds and provides coordination between landowners and technical agencies. CDB is involved in the organization of the individual and watershed projects through local conservation districts.

MSCA coordinates with state and federal agencies to utilize and adapt their technical assistance and funding programs to address nonpoint source pollution and other resource concerns. New federal programs will be accessed that can assist individual producers in implementing the technical assistance MSCA provides to achieve saline reclamation. In addition, MSCA has a strong relationship with Canadian provincial salinity specialists to share information through the Prairie Salinity Network. Similar cooperation has been established over the years through Australian research and landowner groups.

Financial Development Bureau

The Financial Development Bureau is responsible for preparing and managing the cash flow of the division's programs. The bureau also issues loans to borrowers and manages the financial administration of Montana's Water Pollution Control State Revolving Fund (WPCSRF) and Drinking Water State Revolving Fund (DWSRF) Loan Programs. The functions of the bureau include:

- Issuing general obligation bonds
- Issuing coal tax bonds
- Monitoring the operating budget of the division
- Preparing cash flows
 - Water Pollution Control Program
 - Drinking Water Program
 - Reclamation and Development Grants Program
 - Renewable Resource Grant and Loan Program
- Monitoring financial statements of public borrowers
- Monitoring arbitrage calculations for all DNRC bonds
- Administering loans made to public entities

With the passage of the WPCSRF and DWSRF legislation, the volume of work dictated the formation of the Financial Development Bureau. The loan portfolios alone have grown to over \$242 million (see Table 5).

Table 5 Loan Portfolios	
Type of Loan	Amount
Coal Tax Loans	\$ 41,789,000
Water Pollution Control Loans	144,198,000
Drinking Water Loans	56,334,000
TOTAL	\$242,321,000

The disbursements to grantees can be as much as \$5 million per year. Approximately 750 to 1,000 contracts are outstanding at any one time. The financial expenditures on each contract are tracked separately. Cash flows are produced on a monthly basis. For the revolving fund programs, investments must be made for repayment funds in the program.

Bond sales are planned to meet the construction schedules of the borrowers. On the average, \$5 million to \$10 million in bonds are issued each year. In FY 2003, over \$14.6 million in bonds were issued. Loan disbursements were over \$25 million in FY 2003.

State Water Pollution Control Revolving Fund Loans

The Water Pollution Control SRF was created by the 1989 Legislature. It is designed to combine federal grant money with state matching money to create a low-interest loan program that funds community wastewater treatment projects. DNRC and the Montana Department of Environmental Quality (DEQ) co-administer the SRF program. The U.S. Environmental Protection Agency (EPA) makes a grant of federal funds to the state. The state must match 20 percent of that grant. The state's share is derived from the sale of state general obligation bonds. Loans are made by DNRC to public entities at an interest rate of 4 percent for up to 20 years.

Since the program started, the State of Montana has issued \$19.2 million in general obligation bonds, and EPA has contributed \$107 million in grants. These state bonds and federal grants, together with \$18 million in "recycled" (repaid) loan funds, account for the \$144.2 million program level. Seventeen loans totaling \$26.3 million were closed in the 2003 construction season. See Table 6 for a listing of current loans. Program staff expect to make loans of \$25 million in FY 2004.

The City of Missoula borrowed \$5 million to rehabilitate its wastewater treatment facility. These funds matched an EPA grant of \$5 million. The 20-year loan has an interest rate of 4 percent. Many communities are facing this same problem; their treatment plants are 30 years old and need rehabilitation.

Also in FY 2003, the Town of Nashua borrowed \$239,000 to make wastewater system improvements. This community demonstrated a hardship and received a 3 percent interest rate. The loan term is 20 years.

The 1997 Legislature authorized this program to start financing landfills for small communities effective July 1, 1997. The first landfill loan was made to the Northern Montana Refuse District in FY 2003; more landfill loans are expected to close in FY 2004.

Drinking Water State Revolving Fund Loans

This program provides funds for training, technical assistance, and the issuance of low interest loans to local governmental entities to finance drinking water facilities and implement the Safe Drinking Water Act. State enabling legislation was passed in 1995 and amended in 1997, after the U.S. Congress passed federal enabling legislation in August 1996. DNRC and DEQ co-administer the Drinking Water Program. The two agencies first applied for federal funds in January 1998.

The state has issued \$10.3 million in general obligation bonds, EPA has obligated \$37 million, and \$9 million in "recycled" (repaid) loan funds have been used to fund loans for a program level of \$56.3 million. Six loans totaling \$6.3 million were closed in the 2003 construction season, and two existing loans were increased by the borrowing communities. See Table 7 for a listing of current loans. Program staff expect to make loans of \$10 million in FY 2004.

Of the six loans closed, one was to the City of Hamilton. The project loan was for \$220,000 at 4 percent interest. These funds will be used for preliminary engineering so that the construction project will be ready for the next construction season. The construction loan to Hamilton will be closed in FY 2004.

LaCasa Grande Water and Sewer District borrowed \$238,000 at 3 percent interest for 20 years. This project consisted of installing water meters throughout the district. Water meters are a good tool to help people conserve water and be thoughtful about their water consumption.

These projects continue to improve the communities that participate in the loan programs. The loan interest rate also helps to make the projects affordable. No loans are made over the 4 percent interest rate.

Table 6
Wastewater Revolving Fund Loans

Loans Completed	Amount	Loans Completed	Amount
Augusta	\$ 506,000	Manhattan	\$ 636,000
Belgrade	1,058,000	Manhattan	220,000
Belgrade	1,940,000	Missoula	
Big Sky	5,513,000	39 th Street	1,395,000
Big Sky	7,000,000	California Street	502,000
Big Sky	417,000	Mullan Road	1,820,000
Big Timber	385,000	NW Broadway	943,000
Bigfork	1,000,000	Pineview SID	658,000
Billings Special Improvement District	516,000	Rattlesnake	304,000
Butte-Silver Bow	5,307,000	Reserve Street	2,221,000
Cascade	202,000	Reserve Street Interceptor	459,000
Cascade	1,218,000	Reserve Street Pineview	718,000
Choteau	500,000	Reserve Street Special Improvement District	2,671,000
Choteau	530,000	Special Improvement District # 520	2,634,000
Choteau Refinance	109,000	Storm and Sewer	4,577,000
Colstrip	300,000	Wapikiya/Bellevue Add-On	324,000
Colstrip	503,000	Wapikiya/Bellevue Clarifier	2,465,000
Columbia Falls	2,509,000	Wapikiya/Bellevue Clarifier	1,177,000
Columbus	1,540,000	Wastewater Treatment Plant	5,000,000
Conrad	711,000	Missoula County	
Conrad Refinance	233,000	Linda Vista	241,000
Corvallis	235,000	Linda Vista	1,943,000
Corvallis	351,000	Lolo	654,000
Cut Bank	531,000	Nashua	239,000
Cut Bank	800,000	Northern Montana Refuse District	1,035,000
Darby	111,000	Park City County Water and Sewer District	967,000
Denton	55,000	Park County	378,000
Denton	139,000	Park County	83,000
Dillon	1,993,000	Red Lodge	390,000
Drummond	53,000	Red Lodge	3,877,000
East Helena	91,000	Resource Development Bureau	
East Helena	1,983,000	Nonpoint Source 1	1,500,000
East Helena	1,494,000	Nonpoint Source 2	1,750,000
Flathead County		Nonpoint Source 3	2,000,000
Bigfork	424,000	Nonpoint Source 4	2,225,000
Evergreen	3,600,000	Nonpoint Source 5	2,100,000
Evergreen	700,000	Nonpoint Source 6	2,500,000
Forsyth	1,303,000	River Rock Water and Sewer District	3,100,000
Fort Benton	1,177,000	Ronan	620,000
Gallatin County Hebgen	4,136,000	Saint Marie (Glasgow)	150,000
Geraldine	113,000	Shelby	481,000
Glasgow	402,000	Shelby Refinance	453,000
Glasgow	1,048,000	Superior	82,000
Glasgow	778,000	Sweet Grass	150,000
Glasgow	252,000	Sweet Grass	80,000
Glendive	236,000	Townsend	1,071,000
Glendive	376,000	Troy	1,817,000
Great Falls	12,100,000	Valier	200,000
Harlowton	777,000	Valier	19,000
Harrison Water and Sewer District	319,000	Vaughn - Cascade Water and Sewer District	248,000
Havre	2,161,000	Victor	200,000
Helena	9,320,000	Whitefish	120,000
Helena School District (formerly Kessler School)	185,000	Whitewater Water and Sewer District	300,000
Hot Springs	158,000	Wolf Point	453,000
Kalispell	3,913,000	Worden - Ballantine Water and Sewer District	260,000
Kevin	47,000		
Lavina	121,000		
Lincoln/Lewis and Clark Sewer District	309,000		
		TOTAL	\$144,198,000

Table 7
Drinking Water Revolving Fund Loans

Loans Completed	Amount	Loans Completed	Amount
Big Sky	\$ 534,000	Great Falls	\$ 3,000,000
Big Sky	1,966,000	Hamilton	220,000
Billings	818,000	Havre	600,000
Boulder	1,294,000	Havre	8,401,000
Broadview	203,000	Helena	1,250,000
Brockton	45,000	Highwood Water and Sewer District	75,000
Cascade	130,000	Kalispell	761,000
Choteau	332,000	LaCasa Grande Water and Sewer District	238,000
Colstrip	563,000	Lakeside	400,000
Colstrip	829,000	Laurel	5,250,000
Columbia Falls	907,000	Laurel	2,541,000
Conrad	650,000	Lockwood Water and Sewer District	1,700,000
Conrad	1,556,000	Missoula County Fairgrounds	206,000
Cut Bank	283,000	Missoula County Sunset West	291,000
Cut Bank	576,000	Philipsburg	241,000
East Helena	228,000	Plentywood	577,000
East Helena	3,234,000	River Rock Water and Sewer District	2,100,000
Elk Meadows	200,000	Seeley Lake	1,340,000
Ennis	60,000	Shelby	866,000
Eureka	619,000	Shelby	677,000
Fort Peck Water and Sewer District	1,520,000	Twin Bridges	287,000
Gardiner-Park County	170,000	Virginia City	66,000
Gardiner-Park County	330,000	Whitefish	400,000
Gardiner-Park County	267,000	Whitefish	5,839,000
Geraldine	129,000		
Glendive	1,565,000	TOTAL	\$ 56,334,000

Resource Development Bureau

The Resource Development Bureau (RDB) administers several grant and loan programs and provides assistance to conservation districts for the administration of water reservations and to assist landowners to develop new irrigation. The programs include:

- Reclamation and Development Grants Program
- Renewable Resource Grant and Loan Program
 - o Public Grants
 - o Project Planning Grants
 - o Emergency Grants
 - o Private Grants
 - o Private Loans
 - o Public Loans
- Treasure State Endowment Loan Program
- Conservation District Water Reservations
- Irrigation Development Program
- Regional Water Coordination

FY 2003 was a successful year for these programs. Over \$7 million in grant and loan funds was disbursed for projects throughout the state, and 525 contracts were being actively administered.

Reclamation and Development Grants Program

The Reclamation and Development Grants Program (RDGP) is a grant program designed to fund projects that "indemnify the people of the state for the effects of mineral development on public resources and that meet other crucial state needs serving the public interest and the total environment of the citizens of Montana" (MCA 90-2-1102). The program was established in 1987. Any department, agency, board, commission, or other division of state government or any city, town, county, or other political subdivision or tribal government within the state may apply for a RDGP grant. Grants of up to \$300,000 are available per application. The funding source for this program is interest income from the RIT Trust fund and mineral taxes.

During the 2003 legislative session, one of the 18 projects authorized by the 2001 Legislature (Powell County's Ontario Wet Tailings Reclamation Project) was terminated. The remaining 17 projects are under contract and in various stages of project implementation. Figure 6 shows how the 2001 funds were allocated to the original 18 projects.

In May of 2002, RDGP received 26 grant application requesting \$7.3 million. RDGP staff evaluated those applications in FY 2003 and made recommendations to the legislature. After reducing the statutory allocation to the program from \$3 million to \$2.4 million for the biennium, the 2003 Legislature funded the 10 projects listed in Table 8. The minimum of \$2.4 million in grant funds that will be available during FY 2004 is less than a third of the total amount requested. Execution of agreements for these projects began July 1, 2003.

Four of these awards totaling \$840,000 focus on mitigating the impacts of oil and gas development. Two grants to DEQ will aid cleanup of the Washington and Drumlummon hardrock mines. The remaining four allocations are targeted at public water supply and protection (Sunburst), hazardous waste removal (Powell County), mitigating effects caused by greenhouse gases (Governor's Office), and groundwater monitoring (Big Horn CD). The allocation of these funds is illustrated in Figure 6.

Figure 6
Allocation of Funds for
Approved Reclamation and Development Grant Projects

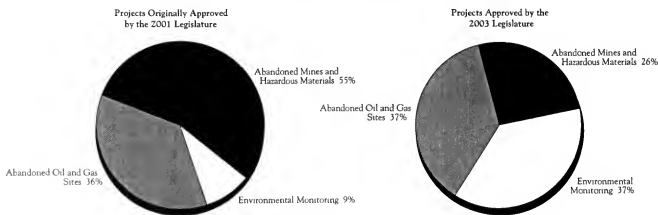


Table 8
Reclamation and Development Grants Approved by the 2003 Legislature
(in Order of Their Ranking)

Project Sponsor	Project Name	Approved Funding
Big Horn Conservation District	Groundwater Monitoring - Tongue and Powder River Watersheds	\$ 300,000
Sunburst, Town of	Sunburst Water Supply Renovation	185,249
Montana Governor's Office	Growing Carbon	300,000
Montana Board of Oil and Gas Conservation	Oil and Gas Plug and Abandonment	200,000
Toole County	2003 Plug and Abandonment	240,000
Montana Board of Oil and Gas Conservation	2003 Northern District Plug and Abandonment	300,000
Montana Board of Oil and Gas Conservation	2003 Southern District Plug and Abandonment	100,000
Montana Department of Environmental Quality	Washington Mine and Millsite Reclamation	300,000
Powell County	CMC Roundhouse Site Cleanup	76,400
Montana Department of Environmental Quality	Drumhomon Tailings, Goldsil Mine Waste Reclamation	300,000
SUBTOTAL		\$ 2,301,649
Funding of projects below this point will depend on the availability of revenue.		
Sheridan County Conservation District	Reclaiming Oilfield Brine Contaminated Soils	150,000
Montana Department of Natural Resources and Conservation	Planning Grants	50,000
Fergus Conservation District	Central Montana Aquifer Project	150,000
Judith Basin Conservation District	Judith Basin Aquifer Restoration and Conservation	70,000
TOTAL		\$ 2,721,649

Renewable Resource Grant and Loan Program

The Montana Legislature established what is now called the Renewable Resource Grant and Loan Program (RRGLP) in 1993 by combining the Water Development Program and the Renewable Resource Development Program. RRGLP was established to promote the development of renewable natural resources. Funding from the RIT interest and the mineral tax is available to research, plan, design, construct, or rehabilitate projects that conserve, develop, manage, and/or preserve Montana's renewable resources. RRGLP funds a variety of natural resource projects including groundwater studies, irrigation rehabilitation, water and soil conservation, municipal drinking water improvements, public wastewater, and forest enhancement.

Over \$4 million was available over the biennium for grants to public entities for renewable resource projects. An additional \$300,000 was available for grants to assist public entities in the planning and design of projects eligible for funding under RRGLP, and \$100,000 was available for private grants. The loan program is funded through the issuance of general obligation and coal severance tax bonds. These private loans are primarily for irrigation projects.

Public Grants

Up to \$100,000 is available per grant application. The total cost of a project usually includes funds from other sources, in addition to RRGLP grants and loans.

In FY 2003, the bureau administered 73 renewable resource grants, and \$2,024,199 was disbursed. Figure 7 illustrates how funds were allocated to projects approved by the 2001 Legislature.

Figure 7
Allocation of Funds for
Approved Renewable Resource Development Public Grant Projects

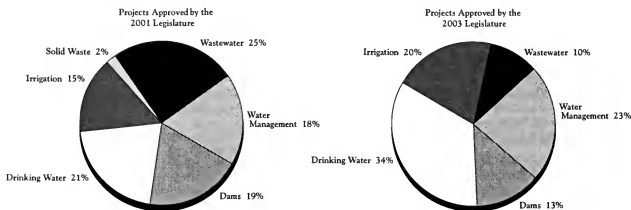


Table 9 lists RRGLP projects in the order in which they were approved and ranked by the 58th Montana Legislature in 2003, and the allocation of funds is shown in Figure 7. These grants will start receiving funds in FY 2004.

An example of a renewable resource grant project is the rehabilitation of the St. Mary siphons. This project was sponsored by the Milk River Joint Board of Control and funded by the 2001 Legislature with a \$100,000 grant that was matched by \$80,000 in operation and maintenance funds from the water users. The project was the second phase of a three-phase project. The siphon is an integral part of the Milk River Project. The siphon was constructed to divert 150,000 acre-feet of water per year from the St. Mary River in the Hudson Bay drainage and transfer it 38 miles to the North Fork of the Milk River in the Missouri River drainage. Last year, this diversion provided 95 percent of the Milk River's water.

The siphon consists of two riveted steel, 90-inch-diameter barrels that transverse down a valley slope from a concrete inlet, cross the St. Mary River, and then ascend the valley slope to a concrete outlet transition. One siphon barrel was constructed above ground, and the other was buried. The total length is approximately 3,205 feet, or a little over half a mile. The grant funds were used to pressure seal the right barrel in the transitional area, including the construction of a new, reinforced seal collar; provide uniform bearing support with soil cement under the right barrel; and replace the 90-inch pipe in the left barrel in places where it had buckled. The project included cutting and removing old pipe, excavating and replacing material, installing and welding new pipe, providing support with soil cement, and realigning the existing pipe saddles.

The rehabilitated project will preserve the existing water supply for the Milk basin, which has 37,000 residents and covers over a fifth of the state of Montana. It serves 99,000 project acres with 666 farms and provides a stable water supply for Milk River Joint Board of Control water users; Bowdoin National Wildlife Refuge; Nelson and Fresno Reservoirs; the cities of Chinook, Havre, and Harlem; and Hill County Water District.

Project Planning Grants

Project planning grants provide up to \$10,000 on a 50 percent cost share to governmental entities for the completion of preliminary engineering, design, and

Table 9
Renewable Resource Grant and Loan Program Projects Approved by the 2003 Legislature
(in Order of Their Ranking)

Project Sponsor	Project Name	Grant Funding	Loan Funding
Scobey, City of	Wastewater System Improvements	\$100,000	-
Dawson County	Yellowstone River Floodplain Management	75,000	-
Flathead Basin Commission	Ashley Creek Headwater Restoration	99,700	-
Missoula, City of	Rattlesnake Neighborhood Sewer Collection System	100,000	-
North Powell Conservation District	Blackfoot River Habitat, Water Quality and Restoration	62,600	-
Montana Department of Agriculture	Monitoring Well Network for the Assessment of Ag Chemicals	100,000	-
Paradise Valley Irrigation District	Hillside Lateral	100,000	-
Ramsay County Water and Sewer District	Water System Improvements	100,000	-
Missoula County	Mullen Road Corridor Sewer Project - Phase I	100,000	-
Park County	North Park County Water Resources Protection Plan	75,000	-
Sheaver's Creek Water and Sewer District	Water System Improvements	100,000	-
Stanford, Town of	Water System Improvements	100,000	-
Hamilton, City of	Water Distribution Improvements	100,000	-
Park County-Cooke City Water District	Water System Improvements	100,000	-
Milk River Joint Board of Control	St. Mary Siphon Expansion Joint Replacement	100,000	-
Buffalo Rapids Irrigation District	Refit of Glendive Pumping Plant	100,000	1,315,000
Mill Creek Irrigation District	Mill Lake Dam Rehabilitation	100,000	572,000
Montana Department of Natural Resources and Conservation	Seepage Monitoring Project - DNRC Dams	97,646	-
Sidney Water Users Irrigation District	Increasing Irrigation Efficiency	100,000	-
Stillwater County	Yellowstone River Floodplain Management	75,000	-
Yellowstone County	Yellowstone River Floodplain Management	75,000	-
Worden Ballantine Yellowstone County Water and Sewer District	Water Distribution System Improvements	100,000	-
Ryegate, Town of	Water System Improvements	100,000	-
Malta Irrigation District	Replacement and Modification of Check Structures	100,000	-
Judith Basin County	Geyser Water System Improvements	100,000	-
Sheridan, Town of	Water System Improvements	100,000	-
Pablo-Lake County Water and Sewer District	Wastewater Treatment System Improvements	100,000	-
Fort Belknap Irrigation District	Sugar Factory Lateral Project	100,000	-
Montana Department of Natural Resources and Conservation	North Fork of the Smith River Dam Rehabilitation	100,000	557,000
Conrad, City of	Raw Water Intake and Pump Station Improvements	100,000	-
Lewis and Clark County Water Quality Protection District	Groundwater Sustainability in North Hills Area, Helena	50,000	-
Power-Teton County Water and Sewer District	Water System Improvements	100,000	-
Phillips County Green Meadows Water and Sewer District	Water System Improvements	100,000	-
Chinook Division Irrigation Joint Board of Control	Fresno Dam - Gate Leaf Seals	100,000	-
Upper/Lower River Road Water and Sewer District	Water System Improvements	100,000	-
Gallatin Local Water Quality District	Dedicated Monitoring Well Network for the Gallatin Valley	50,000	-
Troy, City of	Water System Improvements	100,000	-
Montana Department of Corrections	Rehabilitation of Prison Ranch Dam	80,000	-
Fort Shaw Irrigation District	Water Quality and Quantity Improvement - Phase III	89,122	-
Richland County Conservation District	Irrigation Potential of Groundwater	50,000	-
Hill County	Beaver Creek Dam Outlet Works Repair	-	500,000
Funding of projects below this point will depend on the availability of revenue.			
Pablo-Lake County Water and Sewer District	Water Distribution Improvements	100,000	-
Cut Bank, City of	Water System Improvement	100,000	-
Pleasant View Homesites County Water and Sewer District	Water System Improvements	100,000	-
Gardiner-Park County Water District	Water System Improvements	100,000	-
TOTALS		\$4,079,068	\$2,944,000

feasibility analysis. This new part of the program has been very successful. In FY 2003, 33 contracts in the total amount of \$300,000 were administered for grants to communities all over the state.

Emergency Grants

The department has a \$125,000 appropriation in House Bill 6 each biennium to grant to governmental entities if emergencies occur. A project may qualify as an emergency if it is one that, if delayed until legislative approval can be obtained, will cause substantial damage or legal liability to the entity seeking assistance. The emergency is typically associated with an unanticipated system failure and is not the result of normally expected use and deterioration. Emergencies do not include studies or planning efforts. Examples of emergencies include dam failures, the failure of irrigation structures during irrigation season, and failed wastewater pumping stations. All other reasonable sources of funding must be identified and exhausted before emergency funding is recommended. During FY 2002, five projects were funded, leaving a balance of \$22,500 to fund emergencies during FY 2003.

One project was recommended for funding during FY 2003. Pine Creek School District, a rural school located south of Livingston in Park County, requested funding to replace its well, which went dry in April 2003. DNRC is coordinating with the U.S. Bureau of Reclamation (BOR) to provide joint funding of \$35,000. The amount of funding recommended through RRGLP was \$11,000.

The 2003 Legislature approved \$220,932 for emergency grant funding for the next biennium. This included funding earmarked for two specific irrigation district projects that were brought before the Long-Range Planning Subcommittee. The first appropriation was for Cartersville Irrigation District in the amount of \$20,000; the other was for Hysham Irrigation District in the amount of \$50,000.

Private Grants

Financial assistance is available to any individual, association, partnership, or corporation (both for-profit and nonprofit). The legislature allocated \$100,000 per biennium for private grants. By law, grant funding for a single project may not exceed 25 percent of the total estimated cost.

Most of the funds are targeted to assist small, privately owned water systems. Owners of small systems have difficulty in meeting Safe Drinking Water Act regulations, but must meet the same requirements that municipal water systems face. The department has identified 99 private water systems for potential funding. The average size of a grant is \$2,645; the grant must be matched on a 3-to-1 basis. DNRC awarded six grants totaling \$17,555 in FY 2003.

Private Loans

Loans for private water development projects are available from the department. Loans to individual private entities may not exceed the lesser of \$200,000 or 80 percent of the fair market value of the security given for the project. Private loans to individuals must be secured with real property. Loans up to \$300,000 are available for such organizations as water user associations and ditch companies. These loans are scored by the revenue produced by the system. Irrigation system improvements — for example, the conversion from flood irrigation to sprinkler irrigation — are the most common type of projects funded through private loans.

To finance loans, the law provided authority to issue general obligation renewable resource bonds up to a total outstanding balance of \$20 million. The current outstanding balance on the loans is \$15.4 million. In FY 2003, 307 loans were being administered, including \$6.4 million for 80 newly closed loans.

In FY 2003, the private loan program sold \$1.9 million in taxable general obligation bonds. The interest rate on these bonds is 3.5 percent, which is 2 to 3 percent below traditional market rates for these bonds. Adding a 0.3 percent charge for a loan loss reserve, DNRC is able to offer potential borrowers a very low interest rate for irrigation improvement projects. All loans must qualify as "nonpoint pollution control projects." Because the program primarily funds irrigation improvement projects, all of the new loan requests have qualified for these low interest funds.

Public Loans

This program makes loans to governmental entities for renewable resource projects. The program was started in 1981 by the Montana Legislature, which granted \$250 million in coal tax bonding authority. In FY 2003, 71 public loans with a balance of approximately \$41.8 million were outstanding. The public loans are listed in Table 10. The legislature has approved \$18 million in loans for which funds have not yet been drawn.

The Renewable Resource Public Loan Program has been evolving into a new role over the last decade. Prior to 1990, the public loan program was one of the few low-cost sources of public loan funds available to municipalities. Many of the early loans in the public loan program were for municipal water and wastewater projects. However, since the creation of the Water Pollution Control and Drinking Water State Revolving Fund (SRF) Loan Programs, municipalities are borrowing funds at 4 percent from the SRF programs. This has freed capacity in the public loan program for other types of projects. In fact, there has been a steady increase in the number of irrigation loans that the program has funded, which reflects the need for repair of aging ditches, diversions, and other irrigation infrastructure, as well as the lack of any federal assistance for these projects. The public loan program also provides a safety net for municipal projects, such as solid waste projects, that may not qualify for SRF funding.

Treasure State Endowment Program Loans

The Treasure State Endowment Program (TSEP) is administered by the Montana Department of Commerce. However, if a loan is recommended by the Department of Commerce and authorized by the legislature, DNRC is responsible for closing and administering the loan. This relationship was developed because of the loan expertise and financial management system that DNRC has developed over the last 15 years in administering the Renewable Resource Grant and Loan Program.

DNRC is working with the Department of Commerce on over 30 projects that are combined TSEP and RRGLP projects. The Department of Commerce also reviewed a loan application for a bridge construction project in Yellowstone County and recommended a \$620,000 loan. This recommendation was adopted by the 2001 Legislature, and DNRC is prepared to enter into a loan agreement with the county. The 2001 Legislature also appropriated a TSEP grant for this project, and it appears that revenues will be sufficient to fund the grant. If so, there may be no need to borrow funds from the state.

Table 10
Public Loans

Applicant	Balance Due	Applicant	Balance Due
Anaconda - Deer Lodge County	\$ 112,397	Kevin	\$ 50,937
Antelope County Water and Sewer District	56,214	Lockwood Irrigation District	83,384
Beaverhead County/Red Rock Water and Sewer District	1,830,839	Miles City	781,492
Belgrade	147,268	Mill Creek Water and Sewer District	601,535
Bitterroot Irrigation District	641,388	Neihart	112,991
Bozeman	196,996	Park County	49,953
Bozeman	323,582	Pondera County Canal and Reservoir Company	260,479
Broadwater Power Project	20,505,000	Pondera County Canal and Reservoir Company	208,194
Charlo Water District	7,018	Poplar	103,145
Conrad	40,649	Sage Creek Water District	452,404
Culbertson	105,885	Sanders County Water District at Noxon	75,597
Culbertson	17,547	Shelby	79,930
Cut Bank - North Glacier Water and Sewer District	44,961	State Water Projects Bureau, DNRC	
Daly Ditches Irrigation District	346,456	Bair Dam	947,267
Denton	69,340	Broadwater-Missouri Pipespan	353,610
Dutton	88,986	Deadman's Basin (Barber Canal)	334,249
Dutton	15,921	East Fork Rock Creek Dam	700,000
East Bench Irrigation District	441,633	Nevada Creek Dam	494,041
East Helena	176,347	Petrolia Dam	295,570
Ekalaka	58,340	Shields Canal Water Users Association	10,212
Ennis	24,303	Upper Musselshell Water Users Association	47,627
Ennis	554,823	Yellowwater Water Users Association	5,679
Fairview	135,877	Sun Prairie Water and Sewer District	292,718
Flathead County for Evergreen	2,439,886	Sun Prairie Water and Sewer District	132,972
Forsyth	228,979	Three Forks	68,884
Fort Benton	162,540	Three Forks	48,496
Fort Benton	419,947	Tin Cup Water and Sewer District	240,298
Gardiner - Park County Water District	161,181	West Yellowstone	159,068
Glasgow	1,034,933	West Yellowstone	248,852
Glendive	915,669	White Sulphur Springs	135,007
Harlem	157,081	Whitefish	320,805
Havre	560,039	Wibaux	144,622
Huntley Irrigation District	1,057,340	Winnett	8,800
Huntley Irrigation District	253,625	Yellowstone County	43,295
Huntley Irrigation District	92,821	Yellowstone County	66,183
Huntley Irrigation District	245,632		
Hysham	159,905	TOTAL	\$ 41,789,644

Conservation District Water Reservations

Fourteen CDs in the Yellowstone River basin have reserved water rights for irrigation purposes. During calendar year 2002, the Yellowstone River basin conservation districts received approval from the DNRC director for seven detailed development plans in Custer County, Dawson County, Richland County, Rosebud, Stillwater, and Yellowstone Conservation Districts. There are currently 168 active detailed development plans authorizing a total diversion of 72,774 acre-feet of water from the Yellowstone River and its tributaries. The remaining balance of unappropriated reserved water in the Yellowstone River basin is 475,413 acre-feet.

Nineteen CDs in the upper Missouri River basin and the lower and Little Missouri River basins have active water reservations. From 2000 to 2002, the conservation districts approved detailed development plans in Teton, Richland County, and Roosevelt County Conservation Districts. There are currently 50 active detailed development plans authorizing a total diversion of 22,848 acre-feet of water from the upper Missouri River basin, lower Missouri River basin, and Little Missouri River basin. The remaining balance of unappropriated reserved water is 282,604 acre-feet.

The CDs have continued to actively inform the public of the availability of reserved water through newsletters, newspaper articles, county/agricultural fair booths, and direct mailings to potential water users.

Irrigation Development Program

The Vision 2005 Task Force organized by the Montana Department of Agriculture set a goal to double the value of agriculture in Montana by the year 2005. One of the key components of this vision was to develop 500,000 acres of new irrigation projects that would grow high value crops such as potatoes and sugar beets.

The 1999 Legislature established the Irrigation Development Program to accomplish this goal. For every \$15,000 granted, there will be an additional expenditure of around \$70,000 by the owner, and production on that piece of ground will at least triple. Tripling production has a huge effect on the economic stability of most farm operations. Irrigation also provides a buffer during drought years.

Irrigation Development Grants are available through DNRC. Grants are limited to \$20,000 each (exceptions are available on a case-by-case basis). Grants can be given for projects that lead toward the development of new irrigation and for activities that increase the value of agriculture for existing irrigated lands. Examples include test wells for irrigation, feasibility studies of an irrigation improvement or new system, and provision of information to the public, such as agriculture tours to educate producers on new technology. Both private and public applicants are eligible. Grants awarded during FY 2003 are shown in Table 11.

The irrigation test well portion of the Irrigation Development Program funded seven test wells during this fiscal year. Thirty-nine requests for test wells, seeking far more funds than were available, were received in FY 2003.

In FY 2003, although limited by budget cuts and the 2003 Legislature's elimination of an engineering position, program staff worked with groups throughout eastern Montana to pursue the development of new projects and find ways to increase the value of existing irrigation. Irrigation development projects have involved high

lifts, drilling new wells, and building dams large enough to hold water for irrigation sprinklers. Approximately 49 irrigation projects are ongoing, with small groups of producers risking their time, energy, and money to see whether there is an opportunity to increase the value of their farms. Dryland farmers are starting to convert to sprinkler irrigation for high value crops, and experienced irrigators are increasing their efficiencies by converting flood to sprinkler irrigation. Potato growers have been looking for more acres in eastern and northern Montana and hope that a potato-processing facility will be established in eastern Montana or western North Dakota in the next few years.

Table 11
Irrigation Development Grants Awarded in FY 2003

Project Sponsor	Project	Amount
Cascade County Applicant	Irrigation Test Well Drilling	\$ 5,000
Lower Yellowstone Conservation District Development Committee	Montana Natural Resources Act	31,200
Milk River Joint Board of Control	Global Information System Irrigation Equipment Purchase	6,175
Nilan Water Users	Off-Farm Irrigation Efficiency Improvements	15,000
Pondera County Applicant	Irrigation Test Well Drilling	5,000
Reserved Water Rights Compact Commission	Global Information System Landsat Equipment Purchase	3,600
Richland County Applicant	Irrigation Test Well Drilling	5,000
Richland County Applicant	Irrigation Test Well Drilling	5,000
Richland County Applicant	Irrigation Test Well Drilling	4,900
Roosevelt County Applicant	Irrigation Test Well Drilling	5,000
Roosevelt County Applicant	Irrigation Test Well Drilling	5,000
Rosebud County Applicant	Irrigation Pivot Purchase and Installation	9,806
Rosebud County Applicant	Irrigation Pivot Purchase and Installation	10,000
Sweet Grass County Conservation District	Boulder River Watershed Irrigation Improvements	10,000
West Crane Irrigation District	Irrigation Planning Consultant Services	15,000
TOTAL		\$135,681

Not only is irrigation being developed for high value crops, but it is also an alternative for ranchers who would like to have pasture all summer for their herds. With an intensive grazing rotation under these irrigation pivots, ranchers can rest their rangeland and improve utilization of the grasses. During FY 2003, over 2,000 acres of new irrigation were developed specifically for grazing.

The draft Montana Natural Resources Act was reviewed by the legislative counsel for the United States Senate, and the time frame for introducing the act into Congress is being discussed. The Montana Natural Resources Act would serve as a tool in developing and sustaining irrigation in northern and eastern Montana, as well as providing more irrigation research, Indian education opportunities, debt relief for the Fort Peck Irrigation Project, and wind generation for the Fort Peck Reservation. The legislation is intended to bring over 23,000 acres of planned irrigation off the drawing board and into the field. It would also provide incentives for many more acres of irrigation to be developed under the CD reserved water rights.

CDs continue to make major progress toward developing their water reservations. Work is ongoing to obtain low-cost electric power for irrigation through the Pick-Sloan Program.

Regional Water Systems

The Fort Peck Dry Prairie Rural Water System received authorization from the U.S. Congress in October 2000 (Public Law 106-382). Numerous phases of engineering review have been completed, and funds appropriated by Congress in the two previous funding cycles have been used for various planning and design phases. An environmental assessment (EA) was completed for the project; the Final Programmatic EA (with a Finding of No Significant Impact, or FONSI) was issued in October of 2002. BOR, the U.S. Bureau of Indian Affairs (BIA), DEQ, and DNRC were cooperating agencies in the preparation and release of that document. A final engineering report (FER) has recently been submitted to Congress for a requisite 90-day period. When the FER has met requirements of Congress, BOR will be able to release funds that have been appropriated for construction phases.

Legislation for authorization of the Rocky Boy's – North Central Montana Regional Water System was introduced in the U.S. Congress in May 2001. Hearings before House and Senate subcommittees took place in April and August of 2002, respectively. Numerous revisions to the bill were suggested and reviewed by BOR, Congress, the Chippewa Cree Tribe of the Rocky Boy's Reservation, the North Central Montana Regional Water Authority, and DNRC. Congress authorized this system through Title IX of Public Law 107-331, amending the Indian Financing Act of 1974. It passed the 107th Congress during the last week of the session and was signed into law by President Bush on December 3, 2002. Since that time, BOR has assisted the Tribe and the authority in developing a schedule of work. Activities currently under way include a BOR value engineering study, drafting of a water conservation plan, scheduling of public hearings as part of the EA process, and drafting a FER for the project.

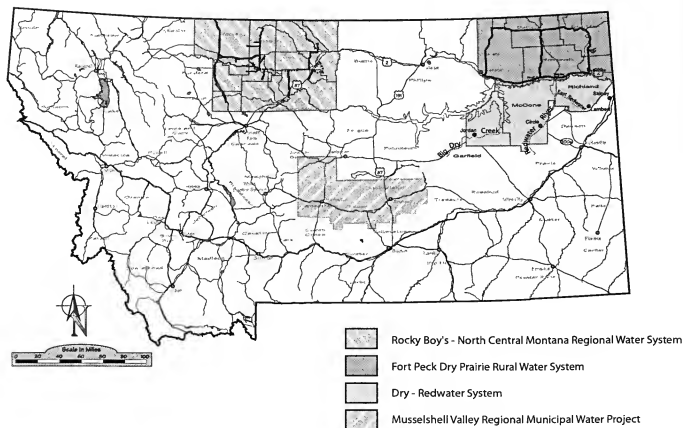
Both of the regional water system projects described above are extensive in scope (see Figure 8). Total funds for completion are estimated at over \$200 million in each case.

Another regional water system proposed for Central Montana is moving further into the planning stages. The working title of this project is the Musselshell Valley Regional Municipal Water Project. It could possibly stretch from southwest of Utica east to Melstone via Roundup, with branch mains south to Harlowton, Shawmut, Ryegate, and Lavina. A preliminary estimated cost of the project is \$34 million. The State Coal Board granted \$300,000 for exploratory drilling and other studies in March 2002. With the assistance of the Montana Bureau of Mines and Geology (MBMG), a new site for the proposed test well has been identified on state-owned land southwest of Utica, and it is anticipated that the test well drilling process will be completed during the summer of 2003.

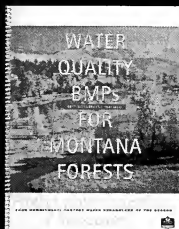
Additionally, due to interest from local officials and residents of Garfield and McCone Counties, as well as portions of Dawson and Prairie Counties, the 2003 Montana Legislature appropriated \$30,000 for a study to investigate the feasibility of a small regional water system in the area. This small system is tentatively known as the Dry-Redwater System, for the Dry and Redwater creeks located in that region.

Finally, the 2003 Legislature authorized the transfer of administration of the TSEP Regional Water Fund from the Montana Department of Commerce to DNRC.

Figure 8. Areas to Be Served by Regional Water Systems



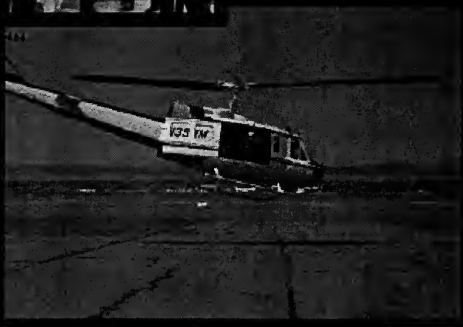
FORESTRY DIVISION



(LEFT) BOB LOGAN, MSU EXTENSION FORESTRY
(RIGHT) DAN BUSHNELL



(LEFT) ERIC KURTZ
(RIGHT) TODD KLEMMANN



DAN BUSHNELL

FORESTRY DIVISION

Protecting Montana's natural resources from wildland fires through regulation and partnerships with federal, state, and local agencies, and helping Montanans achieve land stewardship and compliance with state forestry laws.

The Forestry Division, headquartered in Missoula, is responsible for planning and implementing forestry programs through a network of field offices located across the state. The forestry program has two major functions: fire and aviation management, and service forestry. Each function is further broken down into programs and subprograms, most with statewide application. The Forestry Division has the following goals:

- Protecting the state's natural resources from wildfire, insect pests, and disease
- Sustaining or improving the natural resources of private forestland for the good of all Montanans
- Promoting and supporting conservation practices on all lands in Montana
- Enforcing the state's forest practices laws in a manner that is both fair and consistent to all parties, and that complies with the intent of the legislation
- Encouraging the maintenance, planting, and management of trees and shrubs in Montana communities

Fire and Aviation Management

As charged by state law, DNRC protects the natural resources of the state from fire and is responsible for fire protection on all forestlands within this state that are officially classified by the department as forestlands.

Protection

DNRC's Fire and Aviation Management Bureau is a team of trained professionals providing wildland fire service leadership to Montana, commissioned by Montana citizens to protect the natural resources of the state by preventing and suppressing wildland fires, and accountable to Montana citizens. Presently, all wildlands in Montana have some form of fire protection. DNRC protects natural resources on state and private lands through aggressive fire prevention and protection activities. A total of 50,552,447 acres of state-owned and private lands are protected as detailed in state resource management plans, or as required by law (see Table 12). The Fire and Aviation Program staffs 65 engine (and water tender) companies and 5 helicopters to provide direct protection of 5.2 million acres. The program also loans over 350 engines and water tenders to local fire agencies, primarily in the eastern part of the state. DNRC has been given the responsibility to coordinate all contract responses of fire department resources that cross county lines.

Direct Protection

DNRC provides direct protection to a total of 5,168,942 acres consisting of 3,498,511 acres of state and private land; 694,665 acres of U. S. Bureau of Land Management (BLM) lands; 4,551 acres of Tribal/U.S. Bureau of Indian Affairs (BIA) lands; 18,117 acres of U.S. Fish and Wildlife Service (FWS) lands; 2,776 acres of U.S. Bureau of Reclamation (BOR) lands; and 950,322 acres of U. S. Forest Service (USFS) lands. Privately owned forested lands within the boundaries of an incorporated city are included. Priority is given to the protection of forested lands owned by the state.

State/County Cooperative Fire Protection

Under the State/County Cooperative Fire Protection Program, the department has secondary protection responsibility for 45,309,480 acres of state-owned and privately owned non-forested lands. These lands are predominantly found in eastern Montana. A network of 400 fire departments provides initial response to wildfires in the 56 counties. DNRC assists on fires that escape the counties' capabilities and provides them with training, prevention materials, and equipment.

Contracted Federal Protection

Fire protection of a total of 1,744,456 acres of state and private lands is subcontracted to federal agencies.

Table 12
Fire Protection by DNRC in FY 2003

Total Acres	Category	State and Private Lands (Acres)	Public Lands (Acres)
5,168,942	DNRC Direct Protection State and Private Lands BLM Lands USFS Lands Tribal/BIA Lands BOR Lands FWS Lands	3,498,511	694,665 950,322 4,551 2,776 18,117
45,309,480	State/County Cooperative Fire Protection ¹	45,309,480	
1,744,456	Federal Direct Protection ² Protected by BIA (Tribal) Protected by BLM Protected by USFS Protected by FWS	147,359 68,689 1,491,538 36,870	
52,222,878	TOTALS	50,552,447	1,670,431

1. Includes all 56 counties in Montana

2. Subcontracted to federal agencies

Fire Prevention

The Fire Prevention Program's purpose is to reduce the number and severity of wildfires occurring each year. The program is made up of three parts.

- Engineering through prescribed fire (and airshed management), fuel treatment programs, and application of DNRC's wildland/residential development guidelines
- Education through homeowner programs (like Firewise Communities), workshops, and production of printed and electronic material
- Enforcement through Forest Fire Regulations, fire cause investigation, and forest restrictions when applicable

Wildland/residential interface areas continue to be emphasized through National Fire Plan funding. Ongoing projects include fuel treatment, home fire safety evaluations, and prioritizing communities at risk.

DNRC has completed its fire risk rating on 95 percent of the direct protection areas that are determined to be high risk. Several hundred plats of proposed developments are evaluated annually, and recommendations are then submitted to county commissioners based on DNRC's Fire Protection Guidelines. The Fire Protection Guidelines for Wildland/Residential Interface Development continue to be applied to existing and proposed developments throughout the state.

Major issues in FY 2003 include implementation and monitoring of programs funded by the National Fire Plan, implementation of a revised forest restriction process, and promotion of ongoing educational programs.

Fire Suppression

Through the Fire Suppression Program, DNRC directly protects 5,168,942 acres of state, private, and federal lands; assists all 56 cooperating counties with fires exceeding their capabilities on 45,309,480 acres of state and private lands; and subcontracts fire protection on 1,744,456 acres of state and private lands to the U.S. Forest Service, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, and U.S. Bureau of Indian Affairs (Tribal). DNRC also provides support and assistance to federal fire agencies and other states when appropriate.

The number of fires that occurred during the 2002 fire season was below the five-year average; 322 fire incidents that burned a total of 28,394 acres were reported (see Figures 9 and 10). The average number of fires over the last five years is 408 per year, and the average number of acres burned over each of the last five years is 67,336. The annual acreage burned varied from 16,758 acres in 2001 to 167,582 acres in 2000.

Figure 9
Number of Fires on State-Protected Land

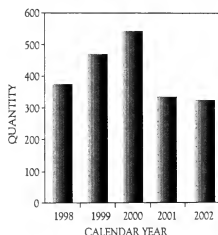


Figure 10
Acres Burned on State-Protected Land

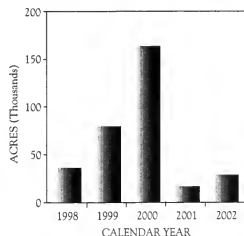
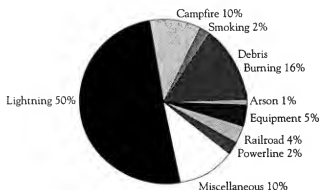


Figure 11
Percentage of Fires, by Cause
(5-Year Average)



Lightning is the single most frequent cause, starting 50 percent of the fires (see Figure 11). DNRC contained an average of 92 percent of the direct protection fires at under 10 acres in size. The charts are based on direct protection and county assist fires.

Fire Training

The Fire and Aviation Management Bureau provides training in fire prevention, detection, investigation, suppression, aviation, communications, safety, prescribed fire, participation on incident management teams, and wildland fire training instruction.

In FY 2003, DNRC conducted or consolidated 212 courses in wildland fire training serving 2,203 volunteer and career firefighters in 56 counties throughout the State/County Cooperative Fire Protection Program and DNRC's seasonal and fire support personnel. Fifty-four Basic Wildland and Intermediate Wildland Firefighting courses with 1,030 attending were conducted by DNRC specifically for local government forces. In addition, DNRC cooperated in each of the five Northern Rockies zones that completed approximately 250 courses serving over 5,000 interagency firefighters.

To meet the need for firefighters for the 2003 fire season, DNRC facilitated the training of National Guard, aviation, and support personnel.

DNRC is actively involved in the development of overhead and management personnel within the agency in cooperation with other wildland fire agencies, in local communities, statewide, and at the Northern Rockies Interagency Training Center in Missoula.

Development and Support

Through its Equipment Development Program, DNRC obtains federal excess property and develops it into fire suppression equipment and vehicles. This equipment is used primarily to support the State/County Cooperative Fire Protection Program. In FY 2003, DNRC obtained supplies, vehicles, and aircraft that have a total value of \$944,330 through the Federal Excess Property Program. The equipment acquired included a total of 30 vehicles and aircraft.

The 89 individual development projects that were completed in FY 2003 are listed in Table 13.

Table 13
Development Projects in FY 2003

Develop Type 6 (200-gallon) wildland engines	10
Develop Type 5 (500-gallon) engine	1
Develop Type 3 (750-gallon) engines	2
Develop shop trucks	2
Construct flatbeds	20
Rebuild pump panels	28
Rebuild pump heads	26

Aviation

The Aviation Section operates and maintains a fleet of eight aircraft. The fleet consists of five helicopters and three fixed-wing airplanes. The three fixed-wing aircraft, Cessna 180 series that are used primarily for fire patrol and personnel transportation, are located in Helena, Missoula, and Kalispell. The section operates three Bell UH-1 series type 2 helicopters at Helena, Missoula, and Kalispell in support of DNRC's initial attack fire suppression program. Two light, type 3 helicopters (Bell 206 B-III) are stationed in Helena. One is owned by the Department of Environmental Quality (DEQ). DNRC maintains this aircraft and provides pilot services to DEQ. In return, DNRC reserves the right to use this aircraft for fire missions. The second light helicopter is used as a backup aircraft or for additional coverage.

In FY 2003 the aircraft flew a total of 954 hours. Other program statistics are shown in Table 14 below.

Table 14
Aviation Program Accomplishments in FY 2003

Water/retardant dropped	897,802 gallons
Fire administration	28 hours
Fire detection/reconnaissance	481 hours
Fire—other	30 hours
Fire suppression—initial attack and extended attack	267 hours
Fire suppression—project ¹	35 hours
Fire training	26 hours
Non-fire missions	71 hours
False alarm	16 hours
TOTAL	954 hours

1. Project fires are large fires with organized fire management teams.

The FY 2003 fire season was an average year for aircraft hours utilized in initial attack and suppression. The state contracted for a medium helicopter that operated primarily out of Libby. The average price for the contract medium helicopter in FY 2003 was \$4,000 per day, plus approximately \$1,500 per hour operating cost. That is \$16,000 per day to operate that aircraft, compared to \$7,000 per day for the state aircraft with a similar load capacity.

National Fire Plan

After the 2000 wildfire season, Congress authorized funding within the U.S. Departments of the Interior and Agriculture to implement the National Fire Plan (NFP). The National Fire Plan is a long-term strategy for reducing the effects of catastrophic wildfires throughout the nation. There are five key points to the National Fire Plan.

- Increase in fire suppression capabilities (firefighting)
- Rehabilitation of burned areas and restoration of landscapes
- Reduction of hazardous fuels
- Assistance to communities
- Accountability to the public and to Congress

The Western Governors' Association has developed a *10-Year Comprehensive Strategy* and an implementation plan, titled *A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment*. These documents provide direction at the national, regional, state, and local levels on National Fire Plan issues.

NFP funding to the states occurs under the community assistance point and is made available through the USFS state and private forestry programs. DNRC has responsibility for delivery of these programs on state-owned and private lands in Montana.

The DNRC NFP Program is implemented primarily within the Forestry Division's Fire and Aviation Management Bureau and Service Forestry Bureau. The National Fire Plan is delivered, wherever appropriate, through existing state and private forestry programs. These programs are:

- County Cooperative Fire Program (Fire and Aviation Management Bureau)
- State Fire Assistance Program (Fire and Aviation Management Bureau)
- Private Forestry Assistance Program (Service Forestry Bureau)
- Stewardship Program (Service Forestry Bureau)

The NFP accomplishments for these programs are included in this section. For more information about these programs, or to learn about accomplishments separate from the National Fire Plan, refer to the sections of this report called Fire and Aviation Management and Service Forestry Programs.

Volunteer and Rural Fire Assistance

The Volunteer and Rural Fire Assistance (VFA/RFA) Program provides assistance to county fire agencies for equipment, training, and fire prevention materials. Adding National Fire Plan funding resulted in a grant program with more money than ever before. Again in 2002, the Department of the Interior

agencies (BLM, FWS, and BIA) contributed their budgeted Rural Fire Assistance Program dollars to be combined with Volunteer Fire Assistance funds granted by the USDA Forest Service. The total assistance available in Montana exceeded \$1.1 million again this year. DNRC and its partners were recognized with the Ben Franklin Award, given by the Forest Service annually to one state for excellence in delivering these programs.

Figure 12 shows the VFA/RFA funding distribution by county.

Figure 12
Montana VFA/RFA Allocations per County
for Year 2002



State Fire Assistance

Administered through the State Fire Assistance Program, NFP-funded projects are under way in the following Montana communities.

Alberton	Frenchtown	Libby	Seeley Lake
Big Timber	Greenough/Potomac	Lincoln	Swan Lake
Butte	Helena	Missoula	Virginia City
Choteau	Hungry Horse	Philipsburg	West Glacier
Columbia Falls	Kalispell	Polson	Whitefish
Florence			

All of these projects address one or more of the following areas.

Hazardous Fuel Reduction

Fuel reduction projects and vegetation treatments have been identified as a means of mitigating wildfire hazards. Projects of this type include fuel breaks, thinning, pruning, landscape modifications, etc.

Information and Education in the Wildland/Urban Interface

Homeowners and local government bear much of the responsibility for improving the defensibility of homes in the interface, but may lack knowledge and information regarding what needs to be done and how to do it.

Homeowner and Community Action

Creating conditions in and around individual structures that will limit the transmission of fire from wildland to structures is basic to reducing the fire hazard in the interface. This is a responsibility of homeowners and communities.

A cost-share program in and around Libby provides homeowners with assistance in reducing hazardous fuels around their homes.

Defensible Space Home Audit Program

The Fire and Aviation Management Bureau has completed its two-year Defensible Space Home Audit Program. This program, which was well received by the public, provided free home inspections for homeowners living in the wildland/urban interface. During these inspections, homeowners spent an hour or two with an official from their local fire department, examining their structures and landscape for fire hazards. Homeowners were given a copy of the inspection report, and a copy was forwarded to the DNRC fire prevention specialist. In all, close to 2,000 home inspections were performed, and the data from these inspections will assist the DNRC Fire Prevention Program in targeting education to address specific homeowner safety concerns.

Private Forestry Assistance

Within the Service Forestry Bureau's Stewardship Program, National Fire Plan funding supported a cost-share grant program for private landowners. In a partnership with Montana's conservation districts (CDs), DNRC service foresters assisted landowners in implementing land management activities that rehabilitated burned areas and/or reduced the risk of wildfires to their homes and property. Key outcomes of this cost-share program were the development of approved land management plans and treatment of private land acreage. Table 15 shows the distribution of projects in Montana.

Table 15
Distribution of Private Forestry Assistance Projects

Conservation District	Number of Projects
Broadwater	14
Deer Lodge Valley	3
Eastern Sanders County	7
Fergus	1
Flathead	6
Granite	3
Green Mountain	11
Jefferson Valley	5
Lake County	6
Lewis and Clark	6
Lincoln	12
Mineral County	15
Missoula	75
North Powell	4
Park	4
Powder River	3
Stillwater	2
TOTAL	177

This program has ended, with no additional funding available through the National Fire Plan. It will be replaced with the new Forest Lands Enhancement Program, which will provide similar assistance to eligible landowners.

Service Forestry Programs

DNRC's service forestry programs provide products and services to various client groups and individuals. The State Nursery grows seedlings for private conservation plantings and reforestation of state-owned lands. Education emphasizing the stewardship and care of forestlands is presented to private forest owners and resource professionals. Communities are assisted with the care and planting of their community forests. Montana's forest laws are upheld. Private forestland improvements are administered using federal cost-share funds. Forest health problems are identified and monitored statewide.

Bureau officials are strategically involved with coordinating and delivering National Fire Plan programs (see preceding section of this report). One example is conservation district and service forestry officials, working together, created a cost-share program to help forest landowners impacted by the fires in 2000. This program continued in FY 2002 and 2003. In addition to assisting landowners impacted by fires in 2000 and 2001, the cost-share program also assists forest landowners with fuel hazard reduction to reduce wildlife risk and severity. To date, the Service Forestry NFP has provided over \$218,000 to 140 landowners to treat more than 1,500 acres.

State Nursery

DNRC's nursery produces, sells, and distributes seedlings for conservation plantings such as reforestation, farmstead windbreaks, fire restoration, shelterbelts, wildlife habitat, living snow fences, stream bank stabilization, and other conservation uses. The nursery provides seedlings to private landowners in Montana, the DNRC Trust Land Management Division, the Conservation Reserve Program, Tribal agencies, the Forest Lands Enhancement Program, the Wildlife Habitat Incentives Program, Pheasants Forever, and numerous other conservation programs and organizations.

In FY 2003 the nursery sold 834,225 conservation seedlings and produced 65,260 seedlings for reforestation of school trust lands, for a total of 899,485 seedlings, as itemized in Table 16.

Table 16
Nursery Seedling Sales from FY 1999 to FY 2004

Fiscal Year	Conservation Seedling Program				Trust Land Seedling Program			Total Nursery Production
	Seedling Production	Seedlings Delivered	Nursery Revenue	Nursery Expenditures	Seedlings Requested	Seedlings Delivered	Seedling Expenditures	
1999	903,800	859,750	\$244,427	\$244,089	127,565	130,326	\$39,231	1,034,126
2000	740,294	712,230	\$272,142	\$272,799	82,130	79,592	\$41,209	819,886
2001	927,677	881,877	\$346,884	\$339,072	201,334	173,341	\$44,767	1,101,018
2002	961,972	902,672	\$368,912	\$363,263	126,300	98,623	\$43,189	1,060,595
2003	892,500	834,225	\$327,836	\$321,031	81,050	65,260	\$39,467	957,760
2004 est.	1,023,400	935,950	\$355,500	\$350,000	103,825			1,127,225

Seedling sales decreased in FY 2003 because of reduced requests for school trust land seedlings and greatly reduced sales in eastern Montana due to the extended drought. Revenue received from conservation seedling sales decreased by 11.1 percent in FY 2003 to \$327,836. All nursery program expenditures were recovered from the sale of seedlings, with \$6,805 carried over to FY 2004 in the nursery special revenue account for future capital equipment upgrades.

Table 17
Conservation Seedling Use in FY 2003

Conservation Practice	Number of Seedlings	Number of Landowners
Reforestation	455,971	92
Wildlife habitat	115,100	146
Farmstead windbreaks	141,550	534
Field shelterbelts	49,525	94
Stream stabilization	33,025	30
Living snow fences	3,625	18
Erosion control	4,225	14
All other uses	31,204	86
TOTALS	834,225	1,014

DNRC nursery seedlings were planted in every county in the state with the greatest number going to Big Horn, Ravalli, Missoula, Cascade, Fergus, and Lewis and Clark Counties. One thousand fourteen landowners planted state-grown conservation seedlings. The numbers of seedlings used in various conservation practices are itemized in Table 17.

Nursery staff authored and published the *Inside Forests* article titled "A Seedling Handling, Planting, and Care Guide." The publication is specific to Montana and will help landowners achieve high seedling survival rates and conservation goals.

Establishment and maintenance of seed orchards at the nursery ensures the long-term availability of Montana-adapted plant materials to landowners in the state. The nursery maintains 40 seed orchards of selected plant materials adapted to the numerous environments present in Montana. In FY 2003, the nursery collected, processed, or purchased 482 pounds of seed from the seed orchards, private vendors, or field collections in the state. Extensive conifer cone collections were completed to obtain seed for fire reforestation efforts.

Forest Pest Management

This program provides pest surveys, training, and technical services to help recognize and manage damaging insects and diseases in Montana's forests. These activities are done in cooperation with the U.S. Forest Service's Northern Region Forest Health Protection Group.

Douglas-fir beetle populations continued to be high in many parts of western Montana, particularly in forest areas that were significantly affected by fire in 2000 and 2001. Populations of mountain pine beetle in lodgepole pine stands continued to expand in the Lolo, Flathead, and Beaverhead-Deerlodge National Forests in western Montana. The number of acres on which mortality caused by mountain pine beetles was recorded more than doubled in 2002, to more than 261,300 acres on all ownerships.

In 2002 aerial surveyors mapped 54,444 acres of defoliation by western spruce budworm in the Beaverhead, Deerlodge, Helena, and Gallatin National Forests east of the Continental Divide. Western false hemlock looper defoliated Douglas-fir on the Flathead Indian Reservation, east of Libby, along the north side of Flathead Lake, and along the Clark Fork River between Rock Creek and Beavertail Hill. Extremely heavy defoliation of Douglas-fir by Douglas-fir tussock moth occurred on approximately 200 acres of private land in the vicinity of Loon Lake, northwest of Polson, in 2002. No gypsy moths were caught in the state in 2002.

Mortality and growth losses from root disease continued to be high throughout the state. The effect of the fires of 2000 and 2001 on root diseases is one of opportunity. The tree species that are best adapted to low intensity, high frequency fires are those species that are also root-disease-tolerant, such as western larch and ponderosa pine. In the root-diseased areas that burned, there is an opportunity to reduce the effects from root disease by planting these species or encouraging their natural regeneration.

Dwarf mistletoe continued to cause losses of approximately 33 million cubic feet annually, mostly to Douglas-fir, western larch, and lodgepole pine. Fire events that kill infected trees will reduce the population of dwarf mistletoes.

White pine blister rust continued to be present throughout the range of five-needle pines (limber pine, whitebark pine, and western white pine) in the state and was most severe in the northwestern portion, where it continued to cause extensive mortality in western white pine.

Elytroderma needle blight continued to be heavy in ponderosa pine in localized areas across western and central Montana. Foliar disease activity was generally light throughout Montana in 2002.

Some of the FY 2003 program accomplishments are listed in Table 18.

Table 18
Forest Pest Management Activities in FY 2003

Technical assistance to private and industrial land managers	57 assists
Professionals trained in basic pest identification	24
Professionals trained in advanced pest management	24
Loggers and private landowners trained in pest identification and management	18
Pest samples identified and management treatments recommended	23
Aerial survey completed and sketch maps distributed to unit offices	3 million acres
DNRC timber sale analyses written	3

The program, along with USFS, also completed and distributed the annual *Montana Insect and Disease Conditions* report.

The third year of work was completed under a mutual contract developed by Montana and Idaho for forest pathology services and funded by a USFS grant.

Forestry Assistance

The Forestry Assistance Program provides a range of services to private forest landowners and economic development organizations. By conveying forestry knowledge, DNRC helps Montanans practice healthy environmental and economic forestland stewardship.

In FY 2003, DNRC provided 1,295 forestry assists, including 87 timber sale assists, 94 National Fire Plan assists, and 58 informational and educational assists. Seventy insect and disease prevention and suppression assists helped Montana landowners treat 1,096 acres. In FY 2003, production of 4,365 thousand board feet (MBF) resulted from 31 assists on 2,738 acres of non-industrial forestlands.

Service foresters provided 1,550 person days of education in a variety of projects including Streamside Management/Best Management Practices (BMP) workshops, the 2003 Forestry Expo, county fair exhibits, school outreach, tree planting, watershed education workshops, and more. Service foresters also increased partnerships between DNRC and other agencies, schools, and small groups, resulting in greater collaboration and project effectiveness.

Timber Slash

The Timber Slash Program implements state laws pertaining to control of timber slash and debris on private land to minimize wildfire hazards. The department carries out its responsibilities by entering into a bonded contract, called a Hazard Reduction Agreement (HRA), with the private party in charge of each cutting. The program handled 1,051 new HRAs in FY 2003 (see Figure 13), while another 1,273 HRAs were certified and closed. Those numbers are a 1.5 percent decrease

in new HRAs and a 10.7 percent increase in closings, compared to FY 2002 levels, which can be attributed to the declining price of lumber.

In FY 2003, the Timber Slash Program collected \$95,008 in administrative fees. In addition, a total of \$58,249 was collected and distributed to Montana State University's Extension Forestry Program.

Forest Practices

The Forest Practices Program provides information and education about forestry BMPs to individuals, groups, corporations, and other agencies. The program includes standards for all forest practices conducted in streamside management zones (SMZs). The program helps people comply with voluntary and mandatory measures designed to protect soil and water resources during timber harvesting operations. In FY 2003, the services listed in Table 19 were provided.

Figure 13
New Hazard Reduction Agreements

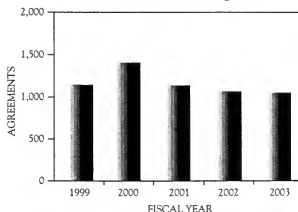


Table 19
Forest Practices Activities in FY 2003

BMP pre-harvest informational packages mailed to landowners	1,051
On-site consultations	116
Post-harvest evaluations	23
Alternative practices issued	40
SMZ warnings issued	14

In cooperation with the Montana Loggers Association, DNRC conducted SMZ/BMP workshops in seven Montana communities for 157 loggers and landowners.

Community Forestry

Now in its thirteenth year as a national program created in the 1990 Farm Bill, the Urban and Community Forestry Program continues to grow in Montana. The mission of the program remains the same: to have a viable program in every community in the state. However, the needs of Montana communities continue to change and expand. Wildland/urban interface, urban sprawl, and community planning have added a new complexity to program fundamentals like tree planting, maintenance, and removal. As more Montanans come to appreciate natural areas and resources within their cities and towns, the program becomes more and more relevant to them.

The program assists community leaders, volunteers, local governments, and the tree care industry with technical assistance, planning, funding for local programs, volunteer coordination, and education. The program works closely with several major partners, including federal agencies, Montana RC&D areas, the university system, and private organizations. Staff also participate in the Montana League of Cities and Towns, local tree and park boards, and volunteer organizations.

Major categories of assistance are shown in Table 20.

Table 20 Major Categories of Community Forestry Activities in FY 2003	
Communities with active programs	70
Montana "Tree City USAs" ¹	36
Communities receiving technical assistance	95
Technology transfer activities (workshops, presentations, conferences, training sessions)	161

1. "Tree City" is a national program through the Arbor Day Foundation.

Highlights of the Community Forestry Program for FY 2003 follow.

For the third year, the Montana Urban and Community Forestry Program offered the Arbor Day Grants Program. Any community in the state wishing to celebrate Arbor Day could apply for a \$150 grant to help with its event. Communities with Tree City USA designations qualified for a \$300 grant. The program awarded 62 grants for a total of \$12,300, which is an increase of nearly 30 percent from last year. Nearly 100 communities celebrated Arbor Day in Montana; the official Arbor Day Celebration took place in Helena on April 25 with a special guest, Governor Judy Martz. Holding an Arbor Day Celebration is one of the requirements for a community to receive a Tree City USA designation.

Another significant accomplishment for the program this year was the addition of eight Tree City USA communities, for a statewide total of 36. All eight communities were new to the program. The program offered the Tree City USA Reward Program Grant for the third year, and each of the new communities received a \$500 grant for its program. Up to five more communities may be designated new Tree Cities next year.

The Montana Community Forestry Council has changed its name to the Montana Urban and Community Forestry Association, passed revisions to its bylaws, and formed a committee to work on changes and updates to the Five-Year Strategic Plan for 2003-2008. The association plans to present urban and community forestry awards at the upcoming Montana League of Cities and Towns' Annual Conference in Billings this October.

The program continues to be active in the Rocky Mountain Chapter (RMC) of the International Society of Arboriculture (ISA). This fall, ISA-RMC and the Montana Urban and Community Forestry Program will host a Basic Tree Climbing and Safety in Rigging Workshop in Billings for tree care professionals across the state. Additionally, the Urban and Community Forestry Program coordinator is serving as the Montana representative to ISA.

OIL AND GAS CONSERVATION DIVISION



PHOTO BY GARY KLOTZ

OIL AND GAS CONSERVATION DIVISION

Prevent waste and provide for the conservation of crude oil and natural gas through regulation of exploration and production.

The quasi-judicial Board of Oil and Gas Conservation (BOGC) and its technical and administrative staff in the Oil and Gas Conservation Division are attached to the Department of Natural Resources and Conservation for administrative purposes. The board consists of seven members appointed to four-year terms by the governor. Members of BOGC during 2002 were:

David Ballard, Chair Billings Petroleum Geologist and Geophysicist	
Denzil Young, Vice Chair Baker Attorney	Allen Kolstad Ledger Farmer
Jerry Kennedy Shelby Oil Producer	Elaine Mitchell Cut Bank Accountant
Jack King Billings Landman	Gary Willis Helena Governmental Affairs Representative

The board's primary responsibilities are conservation of resources and prevention of waste through regulation of oil and gas exploration and production. In regulating these activities, the board relies heavily on its Oil and Gas Conservation Division staff. The division is headquartered in Billings, with field inspectors in Glendive, Plentywood, Roundup, and Shelby, and an administrative office in Helena. The board has a website at:

www.bogc.dnrc.state.mt.us

The board's regulatory actions have four primary goals:

- Prevention of waste of oil and gas reserves
- Conservation of oil and gas through encouragement of maximum efficient recovery of those resources
- Protection of the correlative rights of the mineral owners, i.e., the right of each owner to recover its fair share of the oil and gas underlying its lands
- Prevention of harm to nearby surface or underground resources from oil and gas operations

It accomplishes these goals by issuing orders and deficiency reports, adopting rules, establishing spacing units, classifying wells, issuing drilling permits, and administering bonds (required to guarantee the eventual proper plugging of wells and surface restoration). BOGC also plugs and restores the surface of orphaned, abandoned,

and problem wells, and it is empowered to levy both civil and criminal fines. It maintains a library of well cutting samples and core samples in Billings. Since 1993, the board has certified companies to receive tax incentives for horizontal wells and enhanced recovery projects.

The Oil and Gas Conservation Division is supported from three main sources:

- Privilege and license tax (0.26 percent of the market value of crude petroleum and natural gas produced, saved, and marketed or stored within the state or exported from the state [less government royalties])
- An annual injection well fee
- Federal grant funds for the Underground Injection Control (UIC) Program

The Underground Injection Control Program

BOGC has been administering the UIC Program in Montana since 1996, when primacy for the program was obtained from the U. S. Environmental Protection Agency (EPA).

The objective of the UIC Program is to protect underground sources of drinking water from contamination that could result from the improper disposal of liquid oil-field wastes. Operators apply for a UIC permit through the public notice and hearing process by notifying either the Billings or the Helena Oil and Gas Conservation Office.

BOGC's jurisdiction applies to all but Indian lands. Program costs are covered by an annual operating fee of \$200 per injection well and an EPA operating grant of approximately \$105,000 per year.

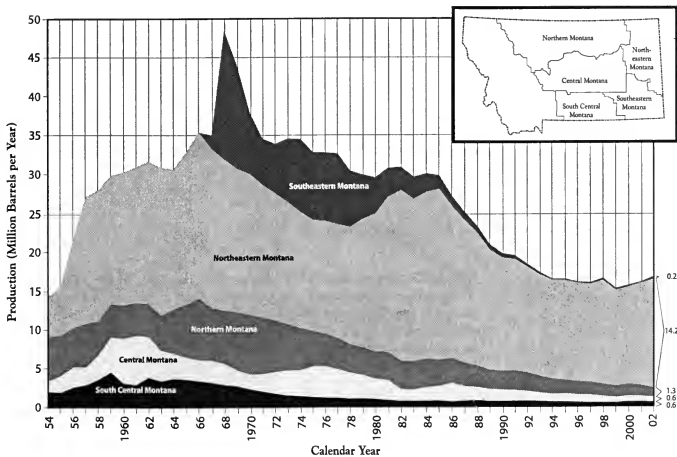
The UIC Program regulates 870 injection wells. In 2002, UIC field inspectors performed 527 inspections of these wells. Most of these inspections were routine, periodic inspections (260) and the witnessing of mechanical integrity tests (254).

In 2002, there were 57 injection well violations, of which 52 were failure to maintain mechanical integrity. This number of violations is lower than the 68 violations in 2001, and it represents a continuation of the downward trend in violations that began in 1999.

Activity Review

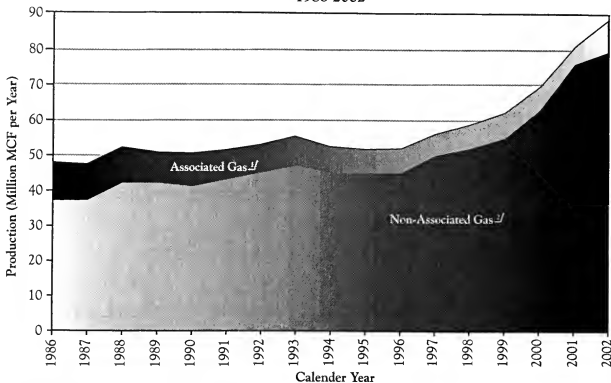
Montana's oil production increased by 4.0 percent, from 16.28 million barrels in 2001 to 16.94 million barrels in 2002. Crude oil production since 1954 is illustrated in Figure 14.

Figure 14
Crude Oil Production in Montana
1954-2002



Total gas production increased from 81.9 million MCF in 2001 to 86.8 million MCF in 2002, setting a new record high. Figure 15 on page 66 shows gas production from 1986 to 2002.

Figure 15
Natural Gas Production in Montana
1986-2002



1. Associated gas is gas that comes from an oil well.
2. Non-associated gas is gas that comes from a gas well.

Well drilling decreased from 531 wells completed in 2001 to 436 in 2002. Figure 16 shows the wells permitted by region, while Table 21 presents the well information by county. There were 290 gas wells, 8 coal bed methane wells, and 56 new oil wells completed during 2002. Table 22 details permits, completions, and oil and gas production history from 1998 through 2002.

Figure 16
Wells Permitted in 2002 by Region
(610 Wells Permitted)

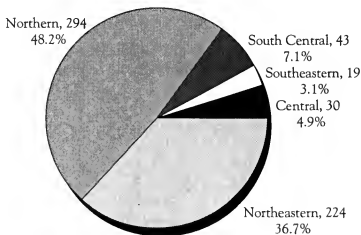


Table 21
Summary of 2002 Production and Drilling by County

County	PRODUCTION			WELL COMPLETIONS				
	Oil ¹ (Barrels)	Associated Gas (Thousand Cubic Feet, or MCF)	Gas (Thousand Cubic Feet, or MCF)	Oil	Gas	Coal Bed Methane	Dry	Other
Big Horn	69,907	0	9,679,910	0	8	8	6	0
Blaine	188,189	0	17,092,108	1	72	0	9	0
Carbon	530,911	488,229	1,127,794	0	1	0	1	0
Carter	0	0	0	0	1	0	1	0
Chouteau	0	0	2,293,319	0	14	0	5	0
Custer	0	0	216,172	0	2	0	0	0
Daniels	1,693	44	0	1	0	0	1	0
Dawson	366,704	119,640	0	6	0	0	1	2
Fallon	6,396,721	1,771,191	10,824,026	10	60	0	0	10
Fergus	0	0	27,209	0	0	0	3	0
Garfield	21,811	1,316	0	0	0	0	0	0
Glacier	533,693	95,176	1,820,311	4	7	0	0	0
Golden Valley	0	0	217,198	0	0	0	1	0
Hill	1,150	0	12,267,878	0	41	0	19	0
Judith Basin	0	0	0	0	0	0	1	0
Liberty	98,596	30,859	2,538,502	0	26	0	1	0
McCone	11,243	0	0	1	0	0	1	0
Musselshell	202,188	17,221	0	0	0	0	1	0
Petroleum	32,908	1,860	0	0	0	0	3	0
Phillips	0	0	14,334,666	0	33	0	0	0
Pondera	136,986	0	238,679	0	0	0	2	0
Powder River	157,118	18,706	97,964	0	2	0	1	0
Prairie	144,499	17,483	1,217	3	0	0	0	0
Richland	3,383,020	2,684,086	46	19	0	0	1	0
Roosevelt	1,520,804	838,578	495	3	0	0	0	0
Rosebud	357,931	27,018	0	2	6	0	0	1
Sheridan	1,615,325	969,686	27,770	2	2	0	1	0
Stillwater	2,999	0	204,527	0	0	0	2	0
Sweet Grass	0	0	91,690	0	1	0	2	0
Teton	54,584	0	48,457	0	0	0	0	0
Toole	292,681	113,183	4,275,877	1	11	0	5	0
Valley	180,655	46,904	1,299,738	3	3	0	0	0
Wibaux	625,957	155,770	650,639	0	0	0	0	0
Yellowstone	19,655	0	0	0	0	0	1	0
TOTAL	16,947,928	7,396,950	79,376,192	56	290	8	69	13

1. Total oil production shown on Table 21 is greater than the total shown on Table 22, because Table 21 includes condensate or other reported natural gas liquids.

Table 22
Five-Year Summary of Drilling and Production in Montana

	1998	1999	2000	2001	2002
Wells Permitted					
Oil	110	79	131	127	142
Gas	302	329	344	469	453
Coal Bed Methane	48	156	113	81	13
Service	2	3	14	16	2
TOTAL	462	567	602	693	610
Wells Completed					
Oil	71	26	60	96	56
Gas	144	235	287	290	290
Coal Bed Methane	21	111	77	48	8
Dry	66	63	57	82	69
Service	14	22	9	15	13
TOTAL	316	457	490	531	436
Oil Production (Barrels)¹					
Northern	1,590,425	1,508,885	1,550,958	1,425,844	1,301,841
Northeastern	13,382,441	12,370,134	12,558,590	13,371,181	14,244,931
Central	828,028	638,239	725,437	650,982	630,338
South Central	582,568	607,414	696,733	656,668	603,383
Southeastern	239,255	208,707	213,671	173,567	157,118
TOTAL	16,622,717	15,333,379	15,745,389	16,278,242	16,937,611
Number of Producing Oil Wells					
Northern	1,912	1,848	1,878	1,838	1,750
Northeastern	1,292	1,264	1,304	1,344	1,393
Central	236	225	229	220	215
South Central	118	119	126	131	130
Southeastern	83	72	77	62	57
TOTAL	3,641	3,528	3,614	3,595	3,545
Non-Associated Gas Production (MCF)					
Northern	46,684,669	47,307,373	52,397,561	57,156,766	56,209,559
Northeastern	4,736,768	6,672,889	7,236,987	8,290,978	11,504,169
Central	94,004	119,271	91,836	92,185	244,407
South Central	1,117,072	1,154,331	4,802,767	9,298,855	11,103,921
Southeastern	439,648	448,519	391,012	384,830	314,136
TOTAL	53,072,161	55,702,383	64,920,163	75,223,614	79,376,192
Number of Producing Gas Wells					
Northern	3,266	3,391	3,550	3,693	3,826
Northeastern	189	246	296	345	412
Central	7	9	8	8	7
South Central	47	141	204	280	292
Southeastern	8	8	8	8	7
TOTAL	3,517	3,795	4,066	4,334	4,544

1. Production figures do not include condensate or other natural gas liquids.

The 2002 activities reflect a continuing shift in interest to natural gas exploration and production, and a decreased interest in oil prospects. Conventional gas development projects predominated new well activities.

During 2002, twelve geophysical contractors received permits for 23 seismic projects. The Williston Basin in northeastern Montana and the Blaine and Hill County areas had most of these projects.

During 2002, approval was given for 72 new horizontal wells and 66 horizontal recompletions of existing vertical wells. BOGC approved one new secondary recovery project and one new tertiary recovery project. Forty-one horizontal recompletions were certified for tax purposes.

Drilling permit activity decreased, with 693 permits to drill issued in 2001 and 610 permits issued in 2002. BOGC's staff performed environmental assessments for each application involving private or state-owned land prior to permit issuance.

BOGC issued 213 orders during the year. Most of these orders authorized increased well density to accommodate in-fill drilling programs, established permanent spacing for horizontal wells and exception wells, delineated new fields, and allowed exceptions to existing field rules.

In 2002, BOGC spent \$476,998 plugging orphaned and abandoned wells using grants from DNRC's Reclamation and Development Grants Program, interest allocated to the board from the Resource Indemnity Tax (RIT) Trust, and proceeds from forfeited plugging and restoration bonds.

RESERVED WATER RIGHTS COMPACT COMMISSION



PHOTO BY BILL GREIMAN

RESERVED WATER RIGHTS COMPACT COMMISSION

Working to "conclude compacts for the equitable division and apportionment of waters between the State and its people and the several Indian Tribes claiming reserved water rights within the state" (MCA 85-2-701) and "between the State and its people and the federal government claiming non-Indian reserved waters within the state" (MCA 85-2-703).

The Montana Legislature created the Reserved Water Rights Compact Commission (RWRCC) in 1979, the same year that it created the Montana Water Court. The purpose of the commission is to negotiate, on behalf of the State of Montana, with Indian Tribes and federal agencies claiming federal reserved water rights in the state. While they are being negotiated, the claims of the Tribes and federal agencies are suspended from adjudication in the Water Court. After being submitted for public comment in the specific area impacted, a negotiated settlement must be ratified by the Montana Legislature and the Tribal Council (in the case of Indian reserved rights) and approved by the appropriate federal authorities.

Montana was one of the first states to conduct such negotiations, and it is still the only state to do so using a commission. RWRCC is supported by a nine-member staff.

The Compact Commission

The Reserved Water Rights Compact Commission is made up of nine members who serve for four-year terms. One member is appointed by the Attorney General's Office, four by the Governor's Office, two by the Speaker of the House, and two by the President of the Senate. Current RWRCC members are:

Chris Tweeten, Chair
Helena
Chief Civil Counsel, Attorney General's Office

Tara DePuy
Livingston
Park County Attorney

Rep. Gary Forrester
Billings
Contractor

Gene Etchart
Glasgow
Rancher

Rep. Cindy Younkin, Vice Chair
Bozeman
Attorney

Lorents Grosfield
Big Timber
Rancher

Sen. Bea McCarthy
Anaconda
Teacher

Steve Hughes
Polson
Rancher

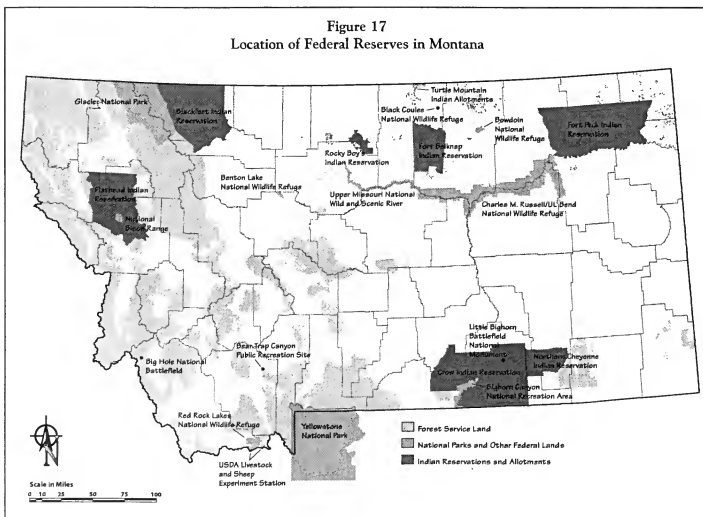
Sen. Bill Tash
Dillon
Agriculture/Rancher

Federal Reserved Water Rights

A federal reserved water right is a right to water that was created when Congress or the president of the United States reserved land out of the public domain. Federal reserves in Montana are shown in Figure 17. The U. S. Supreme Court has ruled that enough water be reserved to meet the purposes for which the reserved lands were designated.

The date that the land was withdrawn and the reservation created is the priority date of a federal reserved water right. Reserved water rights for Indian reservations, for instance, go back to the 1800s. Federal reserved water rights do not have the same restrictions placed on them as on state appropriative rights. For example, a notice of appropriation or a beneficial use is not required to maintain a federal reserved right, and it is not lost due to non-use.

Figure 17
Location of Federal Reserves in Montana



Completed Compacts

The commission has completed the 10 compacts listed in Table 23.

Table 23
Compacts Concluded by the
Reserved Water Rights Compact Commission

Compact	Date	Comments
Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation MCA 85-20-201	May 1985	This compact contains a provision for water marketing by the Tribes, making federal legislation necessary. That federal legislation has not yet passed. This compact has been approved by the Montana Water Court.
Northern Cheyenne Tribe MCA 85-20-301 PL 102-374	April 1991	Included in the compact was a requirement that the federal government and the State of Montana contribute funds to repair and enlarge the unsafe Tongue River Dam, which has been completed. The compact was approved by Congress and signed by the president in 1992. This compact has been approved by the Montana Water Court.
U.S. National Park Service Yellowstone National Park Glacier National Park Big Hole National Battlefield MCA 85-20-401	January 1994	This compact includes an article providing a controlled groundwater area to protect the hydrothermal system in Yellowstone National Park. It is now in the final stage of the Montana Water Court approval process.
U.S. National Park Service Little Bighorn Battlefield National Monument Bighorn Canyon National Recreation Area MCA 85-20-401	May 1995	Codified with the first compact with the National Park Service (above), this compact is in the final stage of the Montana Water Court approval process.
U.S. Bureau of Land Management (BLM) Wild and Scenic Missouri River Bear Trap Canyon, Madison River MCA 85-20-501	March 1997	This compact settles the instream flow rights for two river segments. It has received final approval from BLM management and the U.S. Department of Justice. It will be submitted to the Montana Water Court.
U.S. Fish and Wildlife Service (FWS) Benton Lake National Wildlife Refuge Black Coulee National Wildlife Refuge MCA 85-20-701	March 1997	This compact settles the reserved water rights for two of the six national wildlife refuges. It has been approved by FWS and the U.S. Department of Justice. The Benton Lake Compact and Black Coulee Compact have been submitted to the Montana Water Court.
Chippewa Cree Tribe of the Rocky Boy's Indian Reservation MCA 85-20-601 PL 106-163	April 1997	This compact allocates 10,000 acre-feet per year (AFY) to the Tribe from water arising on the reservation. The federal authorization includes 10,000 AFY from water stored in Tiber Reservoir. The compact was approved by Congress and signed by the president in 1999. It has been approved by the Montana Water Court.

(Continued on page 76)

Table 23
Compacts Concluded by the
Reserved Water Rights Compact Commission
(Continued from page 75)

Compact	Date	Comments
U.S. Fish and Wildlife Service (FWS) Red Rock Lakes National Wildlife Refuge MCA 85-20-801	April 1999	This compact settles the reserved water rights for another of the six national wildlife refuges for which federal reserved rights are claimed in Montana. The Red Rock Lakes settlement has been ratified by the legislature and approved by appropriate federal agencies. It is in the final stages of the Montana Water Court approval process.
Crow Tribe MCA 85-20-901	June 1999 Special Legislative Session	This compact allocates 500,000 acre-feet per year (AFY) of the natural flow of the Bighorn River to the Crow Tribe. The U. S. Bureau of Reclamation will allocate 300,000 AFY of storage in Bighorn Lake to the Tribe. On the area north of the reservation known as the "Ceded Strip," the Tribe has the right to use 47,000 AFY from any water source on any lands acquired and held in trust for the Tribe. The compact provides protection for all current state and Tribal water users in the affected water basins. It authorizes the state to pay the Crow Tribe \$15 million in exchange for the Tribe's dismissal of a coal severance tax lawsuit and for the state's portion of the cost-share for the water rights settlement. A Streamflow and Lake Level Management Plan for Bighorn River and Lake was negotiated and finalized by the parties in 2000, as required by the compact. The compact must go to Congress for approval, and it must pass a Crow Tribal referendum vote. A Memorandum of Understanding dated June 9, 2003, which was signed by the Tribal chairman and the governor, in essence extends compact time lines for Congressional action.
Gros Ventre and Assiniboine Tribes of the Fort Belknap Indian Reservation MCA 85-20-1001	April 2001	Following almost 15 years of negotiations and technical work, the compact negotiated between the State of Montana and the Fort Belknap Indian Community was preliminarily approved by the Fort Belknap Community Council, passed the Montana Legislature, and was signed by the governor in April 2001. This compact allocates 645 cubic feet per second (cfs) from the Milk River to the Tribes, limited by the United States' share of the natural flow of the Milk River and the Tribal capacity to develop the water. It also quantifies the Tribal water rights in Peoples Creek, Beaver Creek, and Missouri River Basin 40EJ. When uses upstream of the reservation interfere with the Tribal water right, the Tribes will obtain water from the federal Milk River Irrigation Project. The parties are currently negotiating the funding and mitigation measures to implement the compact that will be in the federal legislation ratifying the compact.

Current Negotiations

Commission members and staff have been concentrating on negotiations concerning two Indian reservations and two federal agencies.

Indian

Blackfeet Tribe of the Blackfeet Reservation

In the early 1990s, the Blackfeet Tribe chose to litigate rather than negotiate. In November 1997, the Tribal chair informed the commission that the Tribe proposed to resume negotiations and presented a proposal for settlement. A stay of litigation was requested and was entered by the Montana Water Court in December 1997. In January 1998, an initial negotiating session was held. The commission accepted the Tribe's request to resume negotiations, and a negotiating session was held in Helena in December 1998. Since then, staff meetings have been held to exchange technical information that will allow the State of Montana and the United States to evaluate the Tribe's proposal, as well as a Tribal proposal on Birch Creek.

Confederated Salish and Kootenai Tribes of the Flathead Reservation

Following presentation of the Tribes' settlement proposal in June 2001, the parties agreed to establish three working groups: administrative, technical, and claims examination. The parties are currently negotiating an interim agreement to govern water administration on the reservation pending quantification of the Tribes' rights. The Montana Water Court recently approved a request to commence claims examination in the Jocko Basin on the reservation. In addition, the parties are exploring the use of facilitator/mediator services for negotiation of the compact.

Federal

U.S. Department of the Interior

National Wildlife Refuges

The U.S. Fish and Wildlife Service (FWS) claims federal reserved water rights for six national wildlife refuges in Montana. Water rights have been settled for the Benton Lake, Black Coulee, and Red Rock Lakes National Wildlife Refuges.

Negotiations are proceeding on Bowdoin National Wildlife Refuge located near Malta. Complex technical work is progressing toward development of a water discharge plan for the unit.

Negotiations with FWS on the two remaining units (listed below) will continue at a later date.

- Charles M. Russell/UL Bend National Wildlife Refuge
- The National Bison Range

U.S. Department of Agriculture

National Forests

The commission has proposed that the U.S. Forest Service (USFS) withdraw all non-consumptive reserved water right claims in Montana. The negotiating teams have discussed a sequencing process that would require an applicant to acquire any federal authorization prior to obtaining a state water use permit. In addition to sequencing, USFS has suggested other supplemental alternatives, including the possibility of providing additional protection to water flows in "special areas." Discussions and technical work are continuing between the commission and USFS. Additional negotiating sessions are anticipated this year.

The commission staff continues to track activities in Idaho, Wyoming, and Colorado regarding USFS federal reserved water rights.

Livestock and Sheep Experiment Stations

The U. S. Department of Agriculture (USDA) is preparing proposals for the Livestock and Sheep Experiment Stations. Staff field trips were conducted this year.

Other Reserved Rights

The Turtle Mountain Band of Chippewa owns numerous small allotments scattered throughout Montana. The commission has been contacted by the Tribe requesting negotiations. The State of Montana and the Tribe have requested the appointment of a federal negotiating team.

TRUST LAND MANAGEMENT DIVISION



(LEFT / RIGHT) HOYT RICHARDS

(LEFT) BOB VLAHOVICH
(RIGHT) BOB RICH

PHOTO BY DAN BUSINELL

TRUST LAND MANAGEMENT DIVISION

Manage the State of Montana's trust land resources to produce revenues for the trust beneficiaries while considering environmental factors and protecting the future income-generating capacity of the land.

Overview

General background information on the Trust Land Management Division (TLMD) is available on the department's website:

www.dnrc.state.mt.us/trust/tlmdhome.htm

History

By the Enabling Act approved February 22, 1889, the Congress of the United States granted to the State of Montana, for common school support, sections sixteen and thirty-six in every township within the state. Some of these sections had been homesteaded, some were within the boundaries of Indian reservations, and yet others had been otherwise disposed of before passage of the Enabling Act. To make up for this loss, and in lieu thereof, other lands were selected by the State of Montana.

The Enabling Act and subsequent acts also granted acreage for other educational and state institutions, in addition to the common schools. The original common school grant was for 5,188,000 acres. The additional acreage provided for other endowed institutions included 668,720 acres, for a total of 5,856,720 acres. The total acreage figure (see Figure 18) fluctuates through the years due to land sales and acquisitions. Mineral acreage now exceeds surface acreage because the mineral estate has been retained when lands are sold. Surface acreage at the end of FY 2003 totals over 5.1 million acres; mineral acreage exceeds 6.2 million acres.

The trust land management program has been returning revenues averaging \$35.7 million to the school trusts over each of the past five years. Those revenues have been obtained through an average annual expenditure of \$6 million. Therefore, the ratio of dollars returned to dollars expended is 5.9 to 1.

The Permanent Fund

The Enabling Act provided that proceeds from the sale and permanent disposition of any of the trust lands, or part thereof, shall constitute permanent funds

Figure 18. Current Land Ownership
(as of October 8, 2003)

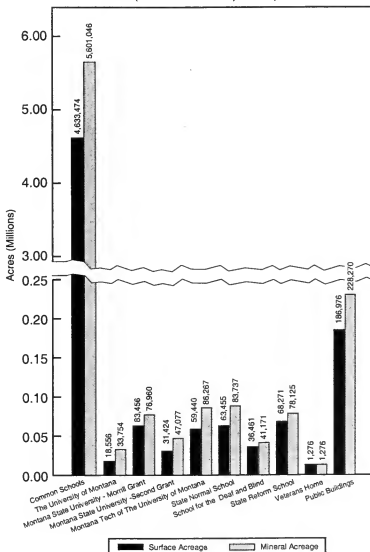
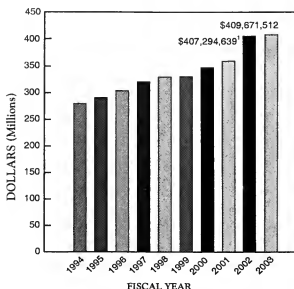


Figure 19. Permanent Fund Balance



1. The Fiscal Year 2002 total includes \$46.4 million in coal trust loan proceeds, pursuant to Senate Bill 495 (2001 Legislature).

for the support and maintenance of the public schools and the various state institutions for which the lands had been granted. The Montana Constitution provides that these permanent funds shall forever remain inviolate, guaranteed by the State of Montana against loss or diversion. These funds are often referred to as "nondistributable."

The program generated over \$4 million in nondistributable revenue in FY 2003, which was offset by trust administration expenses of over \$3.9 million. The net revenue resulted in a balance of over \$409 million in the combined permanent funds. The permanent trust balance is shown in Figure 19; Table 24 shows nondistributable receipts for trust revenue for FY 2003 and the current balance of each permanent trust fund.

Table 24
Revenue Generated for the Trusts and Permanent Fund Balances
in Fiscal Year 2003

Trust	Distributable Revenue	Permanent Fund (Nondistributable Revenue)		
	2003 Revenue	2003 Revenue	2003 TAC Expenses ¹	Current Balance ²
Common Schools	\$43,672,110	\$2,355,861	\$3,669,482	\$381,058,565
Other Trusts				
The University of Montana	192,587	17,496	3,538	1,495,503
Montana State University-Morrill Grant	347,154	85,514	0	2,984,782
Montana State University-Second Grant	836,822	768,110	74,467	8,111,574
Montana Tech of The University of Montana	677,348	712,025	34,762	4,527,556
State Normal School	562,775	234,968	61,247	5,852,146
School for the Deaf and Blind	282,040	168,447	30,578	2,869,965
State Reform School (Pine Hills)	348,803	154,777	23,837	2,754,679
Veterans Home	6,759	0	0	16,742
Public Buildings	771,933	NA	85,162	NA
TOTALS	\$47,698,331	\$4,497,198	\$3,983,073	\$409,671,512

1. Trust Administration Account (TAC) expenditures.

2. Trust balances reflect deposit activity by DNRC only, and do not include valuation adjustments from investment activities by the Board of Investments.

Interest and Income

The Enabling Act further provided that rentals received on leased lands, interest earned on the permanent funds arising from these lands, interest earned on deferred payments on lands sold, and all other actual income shall be available for the maintenance and support of such schools and institutions. These funds are referred to as “distributable.” The Trust Land Management Division distributed over \$47 million in earnings and interest directly to the public schools and other entities in FY 2003. Receipts for FY 2003 trust revenue are detailed in Table 24.

The Montana Board of Investments manages the investments of the permanent fund on behalf of the trust beneficiaries. This fund is also referred to as the Trust and Legacy Fund. The board’s management tenets are expressed in the following excerpt.

History - Article X, Sections 2 and 3 of the state Constitution requires that all royalties and other proceeds received from school lands granted to the state under federal enabling legislation be deposited in the Trust and Legacy Fund, where it shall forever remain inviolate and guaranteed by the state against loss or diversion.

Investment Objective/Constraints

- Long-term, tax-exempt account with a time horizon well beyond normal market cycles.
- Constitution does not permit equity investments.
- Low liquidity requirements, except for investment purposes.
- Current income is important because 95 percent of income is appropriated by the Legislature.
- Broadly diversified portfolio of fixed-income securities, producing a total rate of return exceeding the Lehman Brothers Aggregate Bond Index over a five-year rolling period.

... Montana Board of Investments, Fiscal Year 2002
Annual Report, Helena, Montana, p. 41.

Distribution of Revenues

Each section of state trust land is assigned to a specific trust. Distribution of revenues is handled in three different ways, as explained in the following subsections, depending on the section of trust land that generated the revenue.

The Trust Land Management Division also utilizes some general fund dollars to administer land for some other state agencies, in addition to state trust land. Revenue generated from that land is transferred directly to the state agency.

The Trust Land Management Division is funded predominantly by a combination of trust revenues.

Common School Trust

The distribution of revenues generated from common school trust land is illustrated in Figure 20. From the distributable receipts, a small percentage is used to fund the Resource Development Account and the Timber Sale Account. Ninety-five percent of the remaining distributable revenue is distributed yearly to the state Guarantee Account for use by the public schools of the state. The other 5 percent, together with nondistributable revenue, comprise the Permanent Fund. The interest earned on the Permanent Fund is also distributed to the Guarantee Account for use by the public schools, with the exception of 5 percent, which is returned to the Permanent Fund for reinvestment.

Trusts Other Than the Common School Trust

Distribution of revenues to the other trusts is similar (see Figure 21). A small percentage goes to the Resource Development Account, but no funds go to the State Timber Sale Account. All of the remaining distributable receipts go directly to the trust recipient. Included in "other" trusts are:

- The University of Montana
- Montana State University - Morrill Grant
- Montana State University - Second Grant
- Montana Tech of The University of Montana
- State Normal School (Montana State University-Billings and Western Montana College of The University of Montana)
- School for the Deaf and Blind
- State Reform School (Pine Hills)
- Veterans Home

Public Buildings

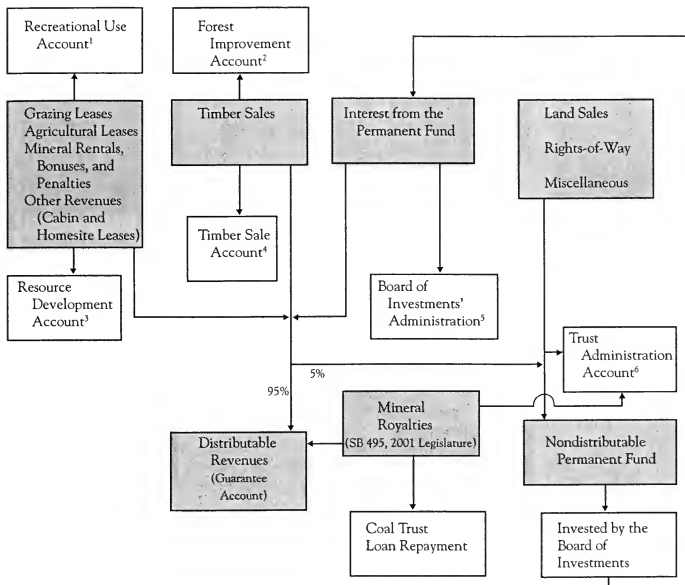
Distribution of revenues on public buildings trust land is similar. There is no permanent fund, however, so remaining distributable receipts go to the Department of Administration.

Purpose

The purpose of the Trust Land Management Division is to administer and manage the state trust timber, surface, and mineral resources for the benefit of the common schools and the other endowed institutions in Montana, under the direction of the Board of Land Commissioners. The board, which is often called the "State Land Board," consists of Montana's top elected officials:

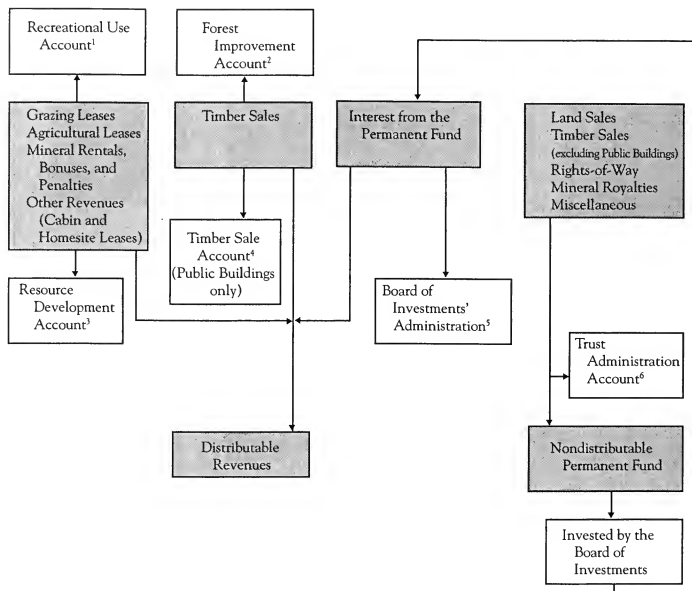
Judy Martz, Governor
 Bob Brown, Secretary of State
 Linda McCulloch, Superintendent of Public Instruction
 Mike McGrath, Attorney General
 John Morrison, State Auditor

Figure 20. Distribution of Revenues from Common School Trust Lands



1. The Recreational Use Account is funded from a portion of each General Recreational Use License sold. (During FY 2003, \$49,315 was spent by TLMD.)
2. The Forest Improvement Account is funded by additional fees assessed on individual timber sales. (During FY 2003, \$1,000,585 was spent by TLMD.)
3. The Resource Development Account is limited to 3 percent of the distributable receipts excluding timber sale income. The purpose of the account is to invest in improving and developing state trust lands in order to increase the income-producing capacity of the lands. (During FY 2003, \$521,622 was spent by TLMD.)
4. The State Timber Sale Account, comprised of timber sale revenue, contains that amount appropriated by the legislature each year to be used specifically for timber sale preparation and documentation. (During FY 2003, \$2,424,074 was spent by TLMD.)
5. The Board of Investments' administration of the Permanent Fund is funded by a portion of the annual interest generated from those funds.
6. The Trust Administration Account was enacted by the 1999 Legislature. This funding utilizes part of the current year revenues. (During FY 2003, \$3,908,496 was spent by TLMD.)

Figure 21. Distribution of Revenues
from Other Trusts (Excluding Common School)



1. The Recreational Use Account is funded from a portion of each General Recreational Use License sold. (During FY 2003, \$49,315 was spent by TLMD.)

2. The Forest Improvement Account is funded by additional fees assessed on individual timber sales. (During FY 2003, \$1,000,585 was spent by TLMD.)

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5. The Board of Investments' administration of the Permanent Fund is funded by a portion of the annual interest generated from those funds.

6. The Trust Administration Account was enacted by the 1999 Legislature. This funding utilizes part of the current year revenues. (During FY 2003, \$3,908,496 was spent by TLMD.)

The division is divided into four primary programs: agriculture and grazing management, forest management, minerals management, and special use management. Program administration, direction, oversight, and support are provided by staff and program specialists located in Helena and Missoula. On-the-ground management is provided by field personnel located throughout the state.

The department's obligation is to obtain the greatest benefit for the school trusts pursuant to MCA 77-1-202. The greatest monetary return must be weighed against the long-term productivity of the land to ensure continued future returns to the trusts. Total gross revenues generated by the Trust Land Management Division over the last five years are listed by activity in Table 25. This table contains not only trust revenues, but also those revenues collected for other state entities, revenues appropriated to fund a portion of the division's programs, and other miscellaneous revenues collected by the division.

Return on Asset Value Report

Senate Bill 411, passed by the 1999 Legislature and codified at MCA 77-1-223-225, requires the Board of Land Commissioners to provide annual reports regarding the average return of revenue on asset value to trust beneficiaries of forested lands. This report is for forested lands classified by MCA 77-1-401 as Class 2 lands that are held in trust for the beneficiary. *"The report must include for each beneficiary:*

- (1) the total acreage of forested land held in trust;*
- (2) a summary of the asset value of the forested tracts held in trust;*
- (3) a calculation of the average return of revenue on asset value for the forested tracts held in trust; and*
- (4) a listing by each department land office of the total acreage of forested land administered for the trust beneficiary and a calculation of the average return of revenue on asset value for lands designated to the trust beneficiary."*

The Report on Return on Asset Value by Trust and Land Office for State Trust Lands is available upon request.

Table 25
Five-Year Summary of
Gross Revenue Generated (by Activity)

Activity	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Agriculture and Grazing Management					
Grazing leases	\$4,608,145	\$4,494,637	\$5,364,305	\$6,047,838	\$5,818,832
Agricultural leases	8,644,162	9,331,416	8,654,425	7,232,111	8,297,415
Totals	\$13,252,307	\$13,826,053	\$14,018,730	\$13,279,949	\$14,116,247
Forest Management					
Timber sales	\$5,905,196	\$10,591,657	\$6,596,578	\$8,282,481	\$6,915,128
Minerals Management					
Oil and gas revenues					
Rentals/bonuses/penalties	\$2,083,626	\$2,966,285	\$3,098,515	\$2,462,315	\$2,402,510
Royalties	2,200,764	3,684,595	6,212,546	3,954,898	5,759,027
Seismic exploration	13,825	11,075	6,533	13,280	9,744
Aggregate minerals					
Rentals	250	250	600	400	175
Royalties	213,185	245,693	225,019	158,044	168,078
Coal					
Rentals/bonuses	44,371	44,371	6,261,360	45,810	43,897
Royalties	2,312,533	4,649,634	4,944,170	2,836,919	3,877,054
Other minerals					
Rentals/penalties	49,412	32,246	20,543	21,775	17,179
Royalties	8,439	8,878	8,079	7,813	4,984
Totals	\$6,926,405	\$11,643,027	\$20,777,365	\$9,501,254	\$12,282,648
Special Use Management					
Rights-of-way	\$157,231	\$279,014	\$218,456	\$307,274	\$189,078
Cabin and homesite leases	616,757	718,290	790,030	854,626	949,102
Land sales	254,917	261,884	0	15,954	19,744
Other leases and licenses	412,213	609,193	509,071	508,399	579,409
Recreational use					
General licenses	348,298	381,740	387,016	517,730	558,690
Special recreation use licenses	86,165	98,948	104,206	114,629	91,190
Totals	\$1,875,581	\$2,349,069	\$2,008,779	\$2,318,612	\$2,387,213
Other					
Trust and legacy interest	\$26,024,064	\$25,620,337	\$26,012,671	\$29,661,124	\$26,551,359
Other revenues	770,200	847,978	838,994	416,871	342,572
Totals	\$26,794,264	\$26,468,315	\$26,851,665	\$30,077,995	\$26,893,931
TOTALS	\$54,753,753	\$64,878,121	\$70,253,117	\$63,460,291	\$62,595,167

Agriculture and Grazing Management

The Agriculture and Grazing Management Bureau supervises the management and leasing of approximately 10,000 agreements for crop and rangeland uses on 4.65 million acres of school trust lands throughout the state. These duties are accomplished by administrative staff and specialists located in the department's Helena office and by staff located in field offices statewide.

Surface Leasing

The program is responsible for the administrative functions associated with maintaining surface lease agreements. Each year, responsibilities include processing approximately 1,000 lease renewals; advertising, competitively bidding, and issuing approximately 50 new leases; reviewing and processing assignments, subleases, pasturing agreements, custom farming agreements, pledges, and mortgages; and collecting, verifying, and posting rentals and fees.

Agricultural Lands

Currently 3,000 agreements include agricultural use of state trust lands. Crops raised on these lands are primarily dryland hay and small grains, but also include irrigated grain crops, corn, sugar beets, potatoes, canola, safflower, alfalfa seed, and native grass seed.

In FY 2003, revenues totaling \$8,297,415 were received from agricultural leasing (see Figure 22). The majority of the leases are on a crop-share basis with the minimum share of 25 percent set by statute. In addition to receiving rental payments from lessees, the state participates in and receives farm program payments from the U. S. Department of Agriculture (USDA) Farm Service Agency, as authorized under the Agricultural Market Transition Act of 1996. For FY 2003, this amount exceeded \$2,700,000 for production flexibility contracts, lands enrolled in the Conservation Reserve Program (CRP), market loss assistance payments, and loan deficiency payments.

Grazing Lands

Approximately 8,500 agreements include grazing use of trust lands. The 4.3 million acres of classified grazing lands and forestlands have an estimated carrying capacity of 1,110,000 animal unit months (AUMs). The minimum rental rate for grazing leases is set by a formula which includes the average weighted price for beef cattle sold in Montana during the previous year. In FY 2003, grazing leases generated \$5,818,832 (see Figure 23).

Land Management

The program manages the agricultural and grazing resources on the lands administered by the bureau. This responsibility includes evaluation and assessment of range and cropland condition; compliance with the Montana Environmental Policy Act (MEPA); administration of archeological, paleontological, and historical properties on state trust land; investigations of lease noncompliance; participation in the Federal Farm Program; and oversight of water developments, water rights, and improvement projects such as range renovation and resource development.

Figure 22
Agricultural Revenue

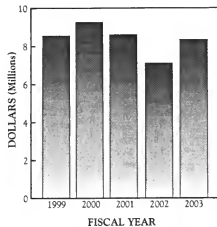
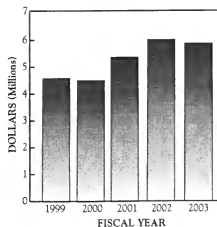


Figure 23
Grazing Revenue



Forest Management

The Forest Management Bureau oversees forested, state-owned trust lands to provide income to the various school trusts. Income is derived from the sale of forest products.

The bureau also provides program direction and support to the area land offices. Several resource management sections provide technical expertise.

- The Ecological Services Section provides guidance for forest land management, vegetation, and wildlife resources.
- The Watershed Resources Section provides expertise and direction for hydrology, soils, and fisheries.
- The Forest Inventory Section directs the collection of stand-level inventory and photo inventory data, provides assistance with timber cruising and forest data sampling, and operates the geographic information system (GIS).
- The Forest Product Sales Section oversees the timber sale program on all forested trust lands.

Support and program direction are offered in several different ways: developing resource management standards, conducting site-specific reviews, and formulating recommendations as members of interdisciplinary teams that develop land management proposals.

The area land offices have primary responsibility for on-the-ground management activities. With assistance from the Forest Management Bureau, they conduct environmental reviews of proposed management activities, prepare contracts for those activities, and complete the necessary field work.

The *State Forest Land Management Plan* (SFLMP), approved by the State Land Board in June 1996, guides the management of the forested trust lands. This guidance is provided in the form of general management philosophy and specific resource management standards. The strategic guidance provided by SFLMP is summarized in this excerpt:

Our premise is that the best way to produce long-term income for the trust is to manage intensively for healthy and biologically diverse forests. Our understanding is that a diverse forest is a stable forest that will produce the most reliable and highest long-term revenue stream. Healthy and biologically diverse forests would provide for sustained income from both timber and a variety of other uses. They would also help maintain stable trust income in the face of uncertainty regarding future resource values. In the foreseeable future timber management will continue to be our primary source of revenue and primary tool for achieving biodiversity objectives.

In February 2003, the State Land Board approved new Forest Management Administrative Rules that provide programmatic direction for the Forest Management Program. These rules are written in support of the resource management standards contained within the *State Forest Land Management Plan*. These new rules apply to all timber management activities initiated as of the date of acceptance of these rules by the State Land Board.

The 2003 Legislature directed the Forest Management Bureau to conduct a new sustained yield study. This study, to be conducted by a contracted third party, will review the annual sales target, which is currently determined to be 42.2 million board feet of timber. The purpose of the study will be to set a new annual timber sales target based on updated forest inventory information. This forest inventory information is more accurate and covers a broader area of the forested trust lands than the information used for the sustained yield study completed in 1996. The new study will be completed in the spring of 2004. During FY 2003 the annual sales target is set by statute to be 50 million board feet. This target is within the range of acceptable sales levels predicted and analyzed in the 1996 *State Forest Land Management Plan*. The new sales target, to be determined, will begin in FY 2004.

The Forest Management Bureau is in the process of developing a habitat conservation plan. This plan would cover a variety of listed species under the Endangered Species Act and may include other species currently listed in Montana as "sensitive species." The objective of this plan, developed in cooperation with the U.S. Fish and Wildlife Service, would be to provide habitat protection for the included species while providing for the continued Forest Management Program on forested trust land. This planning project will be completed in 2006.

Forest Improvement

The program uses fees from harvested timber to improve the health and productivity of trust forests. Uses of these fees authorized by statute include disposal of logging slash, reforestation, acquiring access and maintaining roads necessary for timber harvest, other treatments necessary to improve the condition and income potential of state forests, and compliance with other legal requirements associated with timber harvest. Specific activities include piling of logging slash, prescribed burning, site preparation, seed collection, seedling production, tree planting, thinning, genetic tree improvement, erosion control, and culvert replacement.

In FY 2003, the activities listed in Table 26 were undertaken to improve the health and productivity of forested state trust lands.

Table 26
Forest Improvement Activities in FY 2003

Plantation regeneration surveys	4,992 acres
Tree planting	1,184 acres
Tree browse prevention ¹	221 acres
Precommercial thinning	170 acres
Noxious weed spraying	2,000 acres
Herbicide application ²	354 acres
Brush piling	448 acres
Pile burning	1,964 acres
Broadcast burning	170 acres
Tree improvement areas managed	13 acres
Road maintenance ³	25 miles
Cone collection	412 bushels

1. Tree browse prevention includes replacing, maintaining, or removing seedling netting or applying a chemical repellent.

2. Herbicide application is associated with tree planting.

3. Road maintenance includes grading, snowplowing, bridge removal and upkeep, installing culverts, etc. Many of these activities do not lend themselves to reporting by miles.

Inventory

The program is responsible for the collection and analysis of forest resource inventory data in Montana. The program provides a current, comprehensive inventory of the timber resources on 720,160 acres of forested land administered by the Department of Natural Resources and Conservation. Stand-level inventory maps have been drawn and resource data collected for 1,215,450 forested and nonforested acres of state trust land. The development and maintenance of a geographic information system (GIS) used to support planning for forest management activities and environmental analyses is another responsibility of this program.

In FY 2003, the inventory program collected 52,200 acres of stand-level inventory data and added 700 new polygons to the photo-interpreted inventory database. The Fiscal Year 2003 statewide inventory updating process resulted in 2,100 updated polygons. A total of 7,200 polygons or approximately 202,000 acres were digitized to update the GIS map. A total of 7,200 records were entered into forest inventory databases. A total of 6,200 miles of roads were added, edited, or updated on the GIS road map.

Watershed Resources

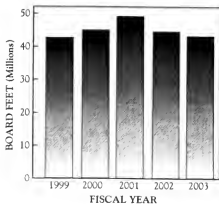
The Watershed Resources Section provided technical assistance for hydrology, fisheries, and soils on 19 timber sales located throughout the state. The Watershed Resources Section assisted in the development of the recently promulgated Forest Management Administrative Rules pertaining to road management, watersheds, fisheries, grazing, and weed management. The section has been a principal in development of the proposed DNRC habitat conservation plan. The section also coordinated and conducted a comprehensive statewide watershed monitoring program. Specific monitoring accomplishments completed during FY 2003 include internal BMP audits of 12 DNRC timber harvests, surveys of several riparian restoration projects, and temperature monitoring of streams in Sula State Forest. A large soil monitoring effort was also completed for the Moose Fire Salvage and Reforestation Project on the Coal Creek State Forest. The section also initiated detailed fish passage assessments of existing stream-crossing structures located across the state.

Forest Product Sales

The program incorporates all activities and expenditures required to grow, harvest, and sell forest products from state trust lands efficiently. Activities within this program include field layout of timber sales; development of sale prescriptions; MEPA documentation; preparation of sale contracts, prospectuses, and notices; both field and office administration of timber sales; and sale billing and accounting. These responsibilities are shared among field foresters, area staff, and bureau staff.

The estimated annual sustainable harvest from forested trust lands is 42.164 million board feet. That figure is the department's annual sales target, until the sustained yield study conducted in 1996 is revisited. Review is required at least once every 10 years, according to MCA 77-5-221-223. The target for FY 2003 was exceeded slightly due to wind throw salvage in the Swan State Forest.

Figure 24
Timber Volume Sold



In FY 2003, 26 timber sales were taken to and approved by the State Land Board for a total of 44.7 million board feet. The actual volume sold in FY 2003 was 43.0 million board feet (see Figure 24), which includes five timber sales that had been approved by the State Land Board prior to FY 2003.

During FY 2003, 44.5 million board feet of timber was harvested from state trust lands (see Figure 25), generating \$6,915,128 in revenue (see Figure 26).

All timber sales and permits are developed, analyzed, and reviewed in the field by foresters and resource specialists to ensure that those sales comply with all applicable laws, policies, and management direction. At the end of FY 2003, DNRC had 64.2 million board feet under contract with an approximate value of \$12 million.

Minerals Management

The Minerals Management Bureau is responsible for leasing, permitting, and managing approximately 2,928 oil and gas, metalliferous and non-metalliferous, coal, and sand and gravel agreements on 6.2 million acres of school trust land and more than 100,000 acres of other state-owned land throughout Montana.

General background information on bureau activities is available on the department's website:

www.dnrc.state.mt.us/trust/tlmdhome.htm

A calendar of key lease sale activities and dates is posted, and lease sale lists and sale results are available for viewing or downloading.

Mineral Leasing

The program is responsible for reviewing and processing all mineral lease and permit applications; advertising, competitively bidding, and issuing new leases; reviewing and approving lease assignments; and collecting, verifying, and posting lease rentals and production royalties.

Revenues received in FY 2003 are listed in Table 27 on the next page; the relative percentage derived from each mineral type is illustrated in Figure 27.

Figure 25
Timber Volume Harvested

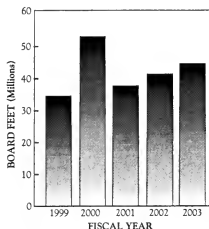


Figure 26
Timber Revenue Received

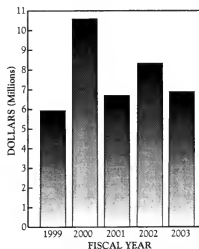


Figure 27
Total Mineral Revenue
by Mineral Type

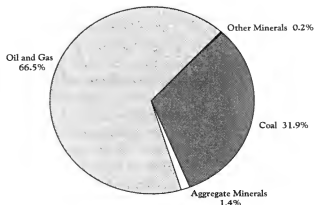
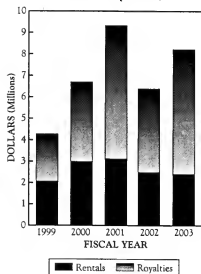


Table 27
Gross Revenues Received from Minerals in FY 2003

Oil and Gas	Rentals/bonuses/penalties	\$2,402,510
	Royalties	5,759,027
	Seismic exploration	9,744
Aggregate Minerals	Rentals	175
	Royalties	168,078
Coal	Rentals/bonuses	43,897
	Royalties	3,877,054
Other Minerals	Rentals/penalties	17,179
	Royalties	4,984
TOTAL		\$12,282,648

Figure 28. Oil and Gas Revenue (excluding Seismic Exploration)

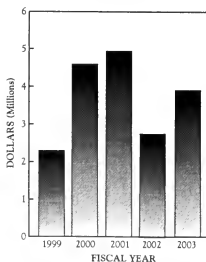


Oil and Gas Leasing

The program is responsible for the leasing and monitoring of 2,795 oil and gas leases, 551 of which are currently productive. The number of oil and gas leases managed is up 1.6 percent, while the number of currently producing leases increased by 1.7 percent, compared to FY 2002. Activities related to existing leases include collecting, verifying, and posting rental, royalty, delay drilling, and shut-in payments; reviewing and approving assignments and tracking working interest ownership; reviewing and preparing for approval communitization agreements and unit operating agreements; and coordinating with field offices the review and approval of all proposed physical operations on state leases. In addition, four oral auctions of new oil and gas leases are prepared and conducted each year.

In FY 2003, 1,017,464 barrels of oil were produced; 5,380,950 MCF of gas and 486,979 gallons of condensate were also produced. Revenues received over the last five fiscal years are shown in Figure 28. Oil production increased 11.7 percent from FY 2002. However, the increase in average price from \$19.53 per barrel in FY 2002 to \$26.90 per barrel in FY 2003 accounted for the majority of the significant increase in oil royalty revenue. Gas production in FY 2003 decreased 8.7 percent, while the price increased 52 percent, compared to FY 2002, which resulted in a significant increase in royalty revenue.

Figure 29
Coal Royalties



Other Mineral Leasing

The program also administers a wide variety of leases—including metalliferous and non-metalliferous leases, coal leases, gravel permits, and land use licenses for non-mechanized prospecting—for all other mineral activity on state trust land. Royalties from coal increased 37 percent compared to FY 2002, while the average price per ton decreased 26 percent. In FY 2003, 3,494,901 tons were mined, which is a 90 percent increase over FY 2002. The volume mined can vary significantly from year to year, as mining activity moves onto or off state land within the normal sequence of mining operations. A five-year summary of coal royalties is shown in Figure 29. Royalties and rentals are also collected for minerals such as bentonite, clay, gold and associated minerals, peat, and shale.

SB 495 (Coal Tax Trust Loan) Implementation

The 2001 Legislature passed SB 495, which authorized the department to borrow from the Coal Severance Tax Trust Fund and place the loan proceeds in the Common School Permanent Fund in lieu of up to 30 years of net future mineral royalties. Instead of being deposited into the permanent fund, these mineral royalties will be utilized to pay back the loan, with any remaining surplus distributed to the Office of Public Instruction for school equalization. The Board of Land Commissioners reviewed the legislation and directed the department to implement the provisions of SB 495 beginning in Fiscal Year 2002.

The SB 495 fiscal note included an estimate that the department would receive approximately \$138.9 million in net mineral royalties over the next 30 years. Using a discount rate of 9.85 percent produced an equivalent present (i.e., loan) value of approximately \$46.4 million. Effective July 1, 2001, the department borrowed \$46,366,904 from the Coal Severance Tax Trust Fund and placed it in the Common School Permanent Fund. Net mineral royalties received since July 1, 2001, have been redirected to cover loan costs, with the remainder going to school equalization. The annual and cumulative effects on both the school equalization account and the Common School Permanent Fund are summarized in Table 28.

Table 28 Implementation of Loan from Coal Severance Tax Trust Fund						
Loan Year	Fiscal Year	Net Mineral Royalties ² (millions)	Loan Repayment		Incremental Effects ¹	
			Principal ³ (millions)	Interest (millions)	School Equalization ⁴ (millions)	Common School Permanent Fund (millions)
1	2002	\$3.654	0	\$3.370	+\$3.234	+\$42.867
2	2003	6.101	0	3.307	+5.285	(-5.970)
Cumulative Effects						
Fiscal Year-End 2003		9.755	0	6.677	+8.519	+36.897
End of Loan (est.)		138.894	46.367	55.767	(-12.178)	(-93.229)

1. The amounts in these columns are the changes in the amounts generated for school equalization and the permanent fund that result from the implementation of SB 495.

2. A pro rata portion of the gross mineral royalties contribute to funding of the Trust Administration Account.

3. SB 495 specified loan payments of interest only during Fiscal Years 2002 and 2003. Therefore, the 2003 fiscal year-end loan obligation remains \$46,366,904. Commencing in Fiscal Year 2004, mineral royalties will be obligated to pay both principal and interest on the loan, with any remainder distributed to school equalization.

4. Includes additional interest earned and distributed from the incremental permanent fund balance.

On April 24, 2002, a lawsuit was filed against the State by MonTRUST (Montanans for Responsible Use of the School Trust). MonTRUST is a nonprofit citizens' organization whose purpose is to promote the protection, advancement, and appropriate use of Montana's school trust lands on behalf of their trust beneficiaries. The lawsuit alleged that SB 495 violated trust duties, and that the State's handling of trust revenues violated the Constitution and the Enabling Act. On June 23, 2003, the State district court ruled in favor of the State on all counts. On October 23, 2003, MonTRUST filed an appeal to the Montana Supreme Court. That appeal is pending.

Royalty Auditing and Accounting

The program provides additional revenue to the school trusts through programmatic audits. The program identifies royalty under- and over-reporting, rectifies discrepancies, and raises the level of voluntary compliance.

Audit activity increased in FY 2003 and continued to reflect improved levels of compliance. Five audits were closed out, including a large settlement with Shell Oil Company resolving issues in dispute since the early 1980s. Collections for all audit assessments totaled \$903,599. Seven audits are currently open and pending from FY 2002, with one preliminary assessment due.

Abandoned Well Reclamation

The Board of Oil and Gas Conservation (BOGC) has regulatory and bonding authority on oil and gas wells in Montana, including those wells on state trust lands. BOGC seeks funding from the Reclamation and Development Grants Program, administered by DNRC's Conservation and Resource Development Division, to reclaim wells where there is inadequate bonding or no responsible party. The Minerals Management Bureau works with BOGC staff to integrate problem wells on state trust land into BOGC's grant requests.

Riverbed Leasing

The Minerals Management Bureau continues its efforts to clarify title to the beds and islands of navigable rivers. Pursuant to statute, the state owns those lands below the low-water mark, islands and their accretions formed in the riverbeds after statehood, and abandoned channels formed by avulsion. Because two navigable rivers in Montana flow through areas with major oil and gas resources, the department has conducted numerous riverbed studies to determine and document state ownership of land. This process allows the state to take a progressive position in issues involving substantial royalties.

In FY 2003, the state received \$296,984 in oil and gas revenues from leased riverbed tracts. Other mineral leasing activity provided \$2,051 from riverbed tracts.

This same ownership review process is also becoming increasingly important in areas where surface development and/or use encounters beds, islands, and abandoned channels of navigable rivers. The department continues to work with state, federal, and private entities whenever ownership issues arise.

McDonald Mine Proposal

In November 1994, the Seven-Up Pete Joint Venture (SUPJV) submitted a mine operation and reclamation plan to the Montana Department of Environmental Quality (DEQ) and DNRC for review. The proposed open-pit gold mine was to be located near the town of Lincoln in Lewis and Clark County and included both private and state school trust lands. Preparation of a joint environmental impact statement (EIS) then commenced, with DEQ, DNRC, and the U.S. Army Corps of Engineers serving as the co-lead agencies.

In July 1998, DEQ issued a stop-work order on the preparation of the EIS because SUPJV had not paid invoiced amounts due. SUPJV subsequently brought its EIS account current with DEQ, but did not fund any further EIS work. In September 1998, DNRC advised SUPJV that the remaining primary term of the mineral leases had resumed running because no EIS review work was taking place. DNRC further advised that, unless the EIS review process recommenced, the state mineral leases would expire when their remaining primary terms ran out in February 2000. In October 1998, SUPJV filed suit against DNRC, asserting that the leases would not expire. SUPJV subsequently withdrew that lawsuit.

In November 1998, a state initiative (I-137) passed that prohibits new open-pit mines that utilize cyanide heap leaching.

In July 1999, mine opponents filed suit against the State Land Board and DNRC, seeking a judicial determination that the mineral leases had already expired. In February 2000, DNRC notified SUPJV that the state school trust mineral leases had now reached the end of their primary term and expired. This determination was upheld on administrative appeal. SUPJV amended its previously filed lawsuit against the State of Montana to include a challenge to this administrative determination. That lawsuit also alleges that I-137 constitutes a taking of property rights held by SUPJV.

On December 9, 2002, the First Judicial District Court dismissed all counts in SUPJV's lawsuit against the State of Montana. SUPJV filed an appeal to the Montana State Supreme Court in January 2003. That appeal is pending.

Special Use Management

The Special Use Management Bureau administers all activities on lands classified as "other" and all secondary activities on lands classified as grazing, agriculture, or timber. The bureau's Real Estate Services Section is responsible for sales, exchanges, and grants associated with management of 5.1 million acres. The Right-of-Way Section manages the disposition of rights-of-way. The Property Management Section manages the Leasing Program and formulates a programmatic plan for the development of special uses on trust lands. The Leasing Program includes commercial developments, new leases such as wind farms, existing homesite leases, and short-term land use and recreation licenses. The bureau is also responsible for assisting other agencies with the management of their land. MCA 77-2-351 allows the state to transfer non-trust lands to local governments for a commitment that the property be used for a continuing public purpose.

The 2003 Legislature passed Senate Bill 137, which provides clear authority for the issuance of leases for commercial purposes. Among its provisions, the law allows the department to issue a commercial lease for up to 99 years; set a minimum annual rental rate at 2 percentage points below the rate of return of the Unified Investment Program administered by the Montana Board of Investments multiplied by the appraised value; utilize up to 10 percent of the annual rentals received for property management and administrative matters related to the leases such as realtor's fees, engineering, surveying, etc.; issue a two-year lease option to preserve the optionee's sole and exclusive right to obtain a commercial lease at a future time; and allow credit against the annual rental accrued for payments made on behalf of the state by the lessee for special improvement district assessments, annexation fees, etc.

The sources of FY 2003 special use revenue are summarized in Table 29, and each is shown as a percentage of the total special use revenue in Figure 30. Income from special uses over the last five years is illustrated in Figure 31.

Figure 30. Special Use Revenue by Source in FY 2003

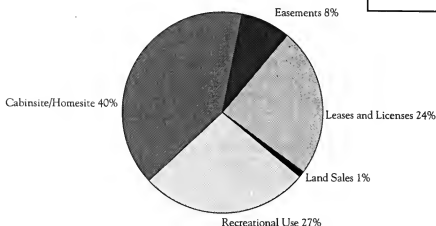
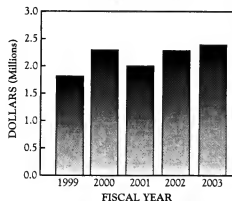


Table 29
Special Use Revenues in Fiscal Year 2003

Cabinsite and homesite leasing	\$ 949,102
Land sales	19,744
Easements	189,078
Special use leases and licences	579,409
Recreational use	649,880
TOTAL	\$2,387,213

Figure 31. Special Use Revenues FY 1999 to FY 2003



Leasing/Licensing

The Property Management Section is actively planning and developing tracts of land with high potential for cabinsite, single- and multi-family residential, and commercial leases. Commercial development of trust land in urban areas has the possibility of increasing revenues over a million dollars over the next five years. Additionally, the section has solicited for and received proposals for the development of wind energy on trust lands.

Lewis and Clark Subdivision — Bozeman

The 12-lot, 33-acre subdivision in Bozeman is a promising development. The property has Interstate 90 frontage between the 7th Street and the 19th Street interchanges. The 19th Street corridor is flourishing with commercial and industrial development. The infrastructure and the development of the first lot, with a state office building, began in April 2003.

Spring Prairie Center— Kalispell

This parcel, adjacent to Kalispell, has been annexed into the City of Kalispell and zoned with a Planned Unit Development agreement. Infrastructure is now available

to begin future development of the property. Home Depot and Target have been developed across the highway from the parcel. This property has promise for retail, commercial, professional, and residential development. The department solicited for development proposals for commercial uses for the land adjacent to Highway 93. The department received several responses and is in the process of negotiating a long-term ground lease on approximately 13 acres with an option to lease 47 additional acres. A Lowe's Home Improvement Store is slated to be the anchor tenant for the first of three phases of development. Future phases may include a multi-screen theatre and several national-name tenants.

14th Street Northwest — Great Falls

The department bid and issued a long-term lease for the development of a Hampton Inn on approximately 3.78 acres across from Marketplace Mall in Great Falls. This property is triangular in shape along 14th Street Northwest at the new interchange. The Hampton Inn opened for business in May 2003.

Continental Divide — Billings

Phase I of this property, which totals more than 300 acres, has been subdivided into residential lots and sold. Single- and multi-family residential and commercial uses are intended for this property. A landscape plan has identified a theme for the property, which will incorporate a trail system, a park, and a greenbelt to preserve native trees.

Whitefish Area Plan

Trust lands within the greater Whitefish area have historically been managed for timber and agricultural uses, while the surrounding community's demographics and economy have significantly changed. The department's goal is to manage trust lands to serve the surrounding community better, while increasing revenue to the trust. In association with the City of Whitefish and Flathead County's updating their Growth Policy, the department has developed a neighborhood plan for approximately 13,000 acres within 5 miles of Whitefish. The Whitefish Area Plan will attempt to bring together the needs of the trust beneficiaries and the needs of the surrounding community.

Programmatic Plan

The bureau is in the process of developing a programmatic environmental impact statement to guide the department in the use of trust lands for commercial, industrial, recreational, open space, and wildlife habitat purposes.

Exchanges

The department reviews and processes land exchanges for the State Land Board under a land exchange policy that was developed a few years ago. Land exchanges are analyzed using the base criteria listed on the following page.

- Equal or greater land value
- Similar navigable lake or stream values
- Equal or greater income to the school trust
- Equal or greater acreage
- Consolidation of state trust lands
- Potential for long-term appreciation
- Improved or equal access to state or public lands

In FY 2003, the bureau received three new applications and supported seven land exchanges in association with the field offices. One land exchange was completed in FY 2003.

Land Sales and Acquisition

One lot in the Continental Divide Subdivision in the Billings area was sold during FY 2003. This was the last lot intended to be sold in the first phase of the development of the Skyview Ridge property.

The 2003 Legislature passed House Bill 223, which enables the Board of Land Commissioners to sell and purchase parcels of state trust land so as to:

- Prudently increase the revenue-generating capacity of state trust lands
- Diversify trust holdings and reduce the number of isolated parcels
- Make management of state trust lands more efficient
- Protect the corpus of the trust from any devaluation or loss
- When consistent with the fiduciary duties, increase legal accessibility and public access to state lands
- Minimize impacts to an individual county's tax base
- Maintain, as closely as possible, the exiting land base of each trust

Rules to implement the Land Banking Program are being developed and will be completed in 2004. Information about the program will be available upon rule completion. To obtain information regarding land banking, please send your name and mailing address to:

Land Banking
Department of Natural Resources and Conservation
P.O. Box 201601
Helena, MT 59620-1601

Information is available at:

www.dnrc.state.mt.us/trust/tlmdhome.htm

Land Transfers

As the central depository for ownership records of non-trust state lands owned by other agencies (except lands owned by DFWP and the Montana Department of Transportation), DNRC is responsible for establishing and maintaining a filing system for information about these state lands. The department is working with the other agencies to establish a database system that will serve as an ownership database for other agencies.

The State Land Board has authority over the disposition of properties and has the ability to sell, lease, or exchange property when it is advantageous to the state, as provided in MCA 77-1-204(2). In 1995, the Legislature passed MCA 77-2-351, which allows the state to transfer non-trust state land to a public entity in return for a commitment that the property will be used to provide a community service or a benefit that fulfills a public purpose. In FY 2003, the department processed the transfer of five state-owned properties as follows.

- The Department of Corrections transferred approximately 219 acres to the City of Deer Lodge/County of Powell for airport expansion.
- The Department of Public Health and Human Services transferred 160 acres to DNRC for possible leasing.
- The Department of Labor and Industry transferred a building and city lot to Toole County for additional office space.
- The Montana Heritage Preservation and Development Commission transferred an easement to Virginia City as part of a new wastewater pipeline, replacing an antiquated system.
- The Department of Corrections returned a 130-acre easement to the City of Deer Lodge/County of Powell in exchange for a new easement on the building and property actually being used by the Department of Corrections.

Recreational Use

The Recreational Use Program was established by the 1991 Legislature. Legally accessible state trust lands may be used for recreational activities by persons who hold state land recreational use licenses, provided the lands are not closed or restricted for such use by rule or by the department. The type of license required depends on the type of activity conducted. Licenses for "general" recreational use—which, with a few exceptions, includes most forms of noncommercial and nonconcentrated recreational activities—can be purchased from all Montana Department of Fish, Wildlife and Parks license agents and DNRC area offices. "Special" recreational use licenses, which are available only from DNRC area offices, are required for concentrated recreational use conducted by groups or organizations, or for commercial activities such as outfitting. In FY 2003, 50,795 general recreational use licenses were sold.

The 2003 Legislature passed Senate Bill 130, which changed the licensing structure of general recreational use. Beginning March 2004, use of state trust lands for hunting, fishing, and trapping will be assessed under the wildlife conservation license. A \$2.00 fee will be added to that license for those recreational uses. All other uses of trust lands will be allowed under the existing general recreational use licensing process.

The department projects that revenues from general recreational use license fees will increase to over \$800,000 annually as a result of this legislation.

Rights-of-Way

The bureau is responsible for reviewing and processing applications for rights-of-way and easements across surface lands and navigable waterways administered by the state. Rights-of-way are most commonly sought for utility lines, pipelines, and roads.

In FY 2003, the bureau received approximately 300 new applications for historic rights-of-way. Under the historic rights-of-way program, utility companies, counties, and private landowners may apply for permanent easements for historic utilities and access roads that were constructed on state trust lands prior to 1997 without the benefit of a legal easement. Applications for historic uses that occurred on state land must be submitted by October 1, 2006. The bureau initially anticipated approximately 100 historic right-of-way applications per year. The increase in applications is due to several utility companies and one county deciding to resolve their trespass situations within the first two years of the program.

The bureau processed approximately 112 applications for new easement installations and 15 assignment requests in FY 2003. A total of 375 applications was presented to the State Land Board. Revenue for rights-of-way in FY 2003 totaled \$189,078.

WATER RESOURCES DIVISION



PHOTO BY DAVE AMMAN

WATER RESOURCES DIVISION

Providing the most benefit, through the best use, of the state's water resources for the people of Montana.

The Montana Constitution affirms that the state's water resources are owned by the State of Montana and are to be used by its people. DNRC has the statutory responsibility to ensure that the state's water resources are managed to meet the existing and future needs of its citizens.

The Water Resources Division (WRD) is comprised of four bureaus — the State Water Projects, Water Management, Water Operations, and Water Rights Bureaus — and eight regional offices. The division employs approximately 115 persons, with staff members stationed in Helena's central office and in the regional offices in Billings, Bozeman, Glasgow, Havre, Helena, Kalispell, Lewistown, and Missoula.

Further information about the division and Montana water resources can be found on the division's website at:

www.dnrc.state.mt.us/wrd/home.htm

State Water Projects

The State Water Projects Bureau administers the operation, management, and rehabilitation of the state-owned dams, canals, and hydropower projects listed in Tables 30 and 31; DNRC also owns these facilities. DNRC also provides professional engineering and rehabilitation assistance on the projects listed in Table 32, which are owned by Department of Fish, Wildlife and Parks (DFWP). Local water user associations that market the water for irrigation and other purposes operate most of the projects. Debt repayment is derived from repayment contracts with water users and from leases of lands associated with the projects (see Table 33). The bureau ensures that the projects are operated and maintained in a safe, efficient manner and that repayment contracts are properly administered.

Table 30
Dams Managed by the State Water Projects Bureau
and Owned by DNRC

Reservoir	Year Completed	Storage (acre-ft.)	High Hazard ¹	Operation and Maintenance Manual in Place	Emergency Action Plan in Place	County
Ackley Lake	1938	5,975	Yes	Yes	Yes	Judith Basin
Bair	1939	7,029	Yes	Yes	Yes	Meagher
Broadwater-Missouri (Toston)	1940	3,000	Yes	No	Yes	Broadwater
Cataract	1959	1,478	Yes	Yes	Yes	Madison
Cooney	1937	28,140	Yes	Yes	Yes	Carbon
Cottonwood	1953	1,900	Yes	Yes	Yes	Park

1. A high hazard dam is one whose failure would endanger lives. This classification is not a reflection on the actual condition of the dam.

(Continued on page 106)

Table 30
Dams Managed by the State Water Projects Bureau
and Owned by DNRC
 (Continued from page 105)

Reservoir	Year Completed	Storage (acre-ft.)	High Hazard ¹	Operation and Maintenance Manual in Place	Emergency Action Plan in Place	County
Deadman's Basin Dam and Dike	1941	76,900	Yes	Yes	Yes	Wheatland
East Fork of Rock Creek (Flint Creek)	1938	16,040	Yes	No	Yes	Granite
Fred Burr	1948	516	No	No	Yes	Ravalli
Frenchman	1952	3,752	No	No	Yes	Phillips
Glacier (two dams)	1937	4,200	Yes	No	Yes	Carbon
Martinsdale (two dams)	1939	23,080	Yes	Yes	Yes	Wheatland
Middle Creek (Hyalite)	1951	10,184	Yes	Yes	Yes	Gallatin
Nevada Creek	1938	12,640	Yes	Yes	Yes	Powell
Nilan (two dams)	1951	10,092	Yes	Yes	Yes	Lewis and Clark
North Fork Smith River	1936	11,500	Yes	Yes	Yes	Meagher
Painted Rocks	1940	32,362	Yes	Yes	Yes	Ravalli
Ruby	1939	38,850	Yes	Yes	Yes	Madison
Tongue	1939	79,071	Yes	Yes	Yes	Big Horn
Willow Creek	1938	18,000	Yes	Yes	Yes	Madison
Yellowwater Dam and Dike	1938	3,840	Yes	Yes	Yes	Petroleum

1. A high hazard dam is one whose failure would endanger lives. This classification is not a reflection on the actual condition of the dam.

TABLE 31
Canals Managed by the State Water
Projects Bureau and Owned by DNRC

Project	Canal	Length (miles)	Capacity (cfs)
Ackley Lake	Supply Outlet	6.7	100
	Outlet	4.7	62
Broadwater-Missouri (Toston)	Main	1.5	342
	West	12.4	90
	East	34.3	262
Deadman's Basin	Supply	11.5	700
	Careless Creek	9.5	344
	Barber	2.9	200
East Fork of Rock Creek (Flint Creek)	Main	7.7	200
	East	5.8	63
	Marshall	16.0	56
	Allendale	13.0	125
	Metcalf	4.1	17

(Continued on page 107)

TABLE 31
Canals Managed by the State Water
Projects Bureau and Owned by DNRC

(Continued from page 106)

Project	Canal	Length (miles)	Capacity (cfs)
Little Dry	Little Dry	11.6	90
Middle Creek (Hyalite)	Cottonwood	4.1	77
Nevada Creek	Douglas	12.6	50
	North	13.4	49
Nilan	Supply	5.5	300
Rock Creek	Point of Rocks	2.3	50
	Finn	9.0	25
	Cottonwood	2.0	25
	Pryde	8.0	40
Upper Musselshell	Checkerboard	2.9	38
	North Fork Diversion	11.7	105
	Martinsdale Supply	2.4	408
	Martinsdale Outlet	2.6	333
	Two Dot	32.1	122

Table 32
DFWP Projects with Engineering Services
Provided by the State Water Projects Bureau

Reservoir	Year Completed	Storage (acre-ft.)	High Hazard ¹	Operation and Maintenance Manual in Place	Emergency Action Plan in Place	County
Ashley Lake	Unknown	20,400	No	No	Yes	Flathead
Bearpaw	1958	535	Yes	Yes	Yes	Hill
Clearwater Fish Barrier (Lake Inez)	1963	>50	No	No	No	Missoula
Gartside	1962	326	Yes	Yes	Yes	Richland
Johnson	1930s	208	No	No	Yes	Hill
Knowlton	1890	166	No	No	Yes	Teton
Park Lake	1872	225	Yes	Yes	Yes	Jefferson
Rainy Lake Fish Barrier	Unknown	>50	No	No	No	Missoula
South Sandstone	1975	940	No	No	Yes	Fallon
Whitetail	1930s	198	No	No	Yes	Daniels

1. A high hazard dam is one whose failure would endanger lives. This classification is not a reflection on the actual condition of the dam.

Table 33
Leases Associated with DNRC-Owned Water Projects

Lease Type	Number of Leases	Annual Revenues
Cabinsite	26	\$4,530
Grazing	5	4,630
Right-of-Way	1	42
TOTALS	32	\$9,202

Project Rehabilitation

The Project Rehabilitation Program identifies and corrects safety and operational deficiencies on state-owned projects. Projects rehabilitated or partially rehabilitated during FY 2003 include Bair Dam located near Checkerboard, Montana; Painted Rocks Dam located near Conner, Montana; and Nevada Creek Dam located near Helmville, Montana.

Bair Dam Rehabilitation Project

DNRC contracted the final design for this rehabilitation project. A two-phased approach was used for construction. Both phases are now complete. Phase I included excavation, drains, a new outlet terminal structure, and a toe berm. Phase II included a new concrete spillway, access roads, and a 3-foot embankment raise. Bair Dam Phase II was delayed by a slope failure above the spillway, for which remediation construction has been completed. Phase II was completed in December 2002.

Nevada Creek Rehabilitation Project

DNRC contracted the final design for this rehabilitation project. A phased approach is being used for construction. Phases I and II have been designed, and Phase I was completed in December 2002. Construction included an outlet extension, materials processing, toe berm, drain system, and dewatering wells. Phase II, the new concrete spillway, is under contract and is scheduled for completion by December 2003. Construction costs for the new spillway are approximately \$1.6 million.

Painted Rocks Dam

Miscellaneous concrete repairs were made to the spillway at Painted Rocks Dam. Concrete repairs are routinely made to several of our projects in order to forestall the need for major rehabilitation. Cost of the concrete repairs was approximately \$25,000.

Seepage Monitoring

Seepage monitoring is required as a condition of the operating permits for all of the regulated high hazard dams in Montana. A *high hazard* dam is one whose failure would endanger lives. This classification is not a reflection on the actual condition of the dam. Of DNRC's 21 projects, 19 are classified as high hazard (see Table 30).

The seepage monitoring data collected on DNRC's projects are maintained in "DamSmart." DamSmart is a computer database that allows monitoring well data to be recorded, graphed, and compared with reservoir levels, weir and flume flows, and water conditions around the dam. These data are used in conjunction with annual inspections and monthly reviews.

The bureau received a Renewable Resource Grant to establish seepage-monitoring programs at four additional DNRC dams: Cataract, Painted Rocks, Willow Creek, and Yellowstone. These four dams currently have minimal monitoring capabilities. The Willow Creek Dam instrumentation will be completed during fall 2003. The other projects are scheduled for fall 2004.

Project Management

The Project Management Program administers the operation of the state-owned dams and oversees the repayment contracts with the water user associations. Additionally, the program protects water rights for the projects and oversees disposal of projects no longer appropriate for state ownership.

Project Disposition

Many years ago, the State of Montana became involved in various water conservation projects because there was a need for government to create employment opportunities and stabilize the agricultural economy. Governmental involvement in these projects no longer provides public benefits, and the projects are being transferred to water districts and private ownership. The following activities were accomplished during FY 2003.

- The transfer of the Flint Creek project is in progress and nearing completion.
- The Noxon municipal water supply and the Hotchkiss irrigation projects were transferred to private ownership.
- A field inspection and an economic analysis of the grazing lease were performed on the Valentine project. An easement from the local school district is being sought. The Valentine project will continue to be leased for grazing.
- Field work, an engineering report, and preliminary negotiations are being conducted on the Bainville flood control project and the Big Lake project.
- Preliminary file reviews, financial status determinations, title searches, and field reviews are scheduled on the Sehm, Pardis, Wold, Red Butte, and Deer Creek properties.

Canal Operations

The Canal Operations Program is responsible for identifying and correcting operational deficiencies of state-owned canals. The following activities were accomplished in FY 2003, in addition to routine repairs and inspections.

- An emergency repair of the Flint Creek project's Marshall Canal siphon was undertaken. The existing siphon, a 60-year-old, 36-inch by 600-foot steel pipe, was severely corroded and leaked copiously. It was replaced with a 30-inch, high density polyethylene (HDPE) pipe.
- The south flume of the Middle Creek project's Cottonwood Canal was rehabilitated. Three hundred feet of the 18-gauge sheet-metal chute was replaced with new, galvanized sheet metal.
- Preparatory work was initiated to improve the Nilan Reservoir supply canal. Approximately 4 miles of the canal will be lined in order to reduce seepage and improve flow.
- An investigation and assessment were performed of the collapsing stilling basin on the Upper Musselshell project. Drop #2 of the Martinsdale outlet canal was inspected, and a preliminary cost estimate for the repair of the structure was executed. The stilling basin will be rehabilitated during FY 2004.
- The mapping and geographic information system (GIS) inventory of DNRC canals continue as an ongoing process.

Water Measurement and Water Rights Activities

The State Water Projects Bureau is responsible for all activities necessary to protect and maintain the water rights for all state-owned water projects.

In FY 2003, the bureau collected and recorded bimonthly reservoir storage data for 18 state-owned reservoir projects, and it operated and maintained 32 permanent stream- and canal-gaging stations associated with state projects.

Additionally, the bureau measured streamflows and maintained rating tables for staff gages on the four major tributaries immediately above Painted Rocks Reservoir. These gages are used to provide inflow data for use in implementing the *Operating Plan for Painted Rocks Reservoir*, which was first developed and implemented in FY 1999. This data collection included tabulating and recording annual discharge summaries for all stations for FY 2003.

In 1996, the State Water Projects Bureau asked the Montana Water Court to clarify its project water rights by consolidating its claims, which were originally filed for five uses (storage, irrigation, stock, domestic, and municipal), into claims for "Sale of Water" for those same purposes. The proposed clarification of purposes would allow the place of use for the water to be described in more general terms, that is, by township, range, and county only. The proposed consolidation and clarification of DNRC claims would not change the historical purpose of water use from the state projects, but only more accurately and concisely reflect that historical use. On May 12, 2000, the Montana Water Court granted all of the DNRC requests under an Order Adopting Master's Report in Case No. 76HE-166. This order also amended the DNRC water rights for the Painted Rocks Project accordingly.

In FY 2003, the State Water Projects Bureau continued settlement negotiations to resolve objections and amendments to its project water rights in seven basins to

incorporate the results of the above Water Court decision. Settlement documents have been filed with the Montana Water Court for five of those basins and are pending Water Court action. Settlement negotiations are continuing smoothly with the preparation of a stipulation for the other two basins.

The bureau is responsible for all water measurement and water right activities associated with state-owned projects. These activities include the monthly collecting, reporting, and summarizing of reservoir storage data for 18 state-owned reservoir projects, and operating and maintaining 36 stream-gaging stations. This data collection includes tabulating and recording annual discharge summaries for the 36 gaging stations. Research and technical support and assistance are provided to legal staff for resolving all water right issues on the projects. Most water right work involves settlement of objections to project water rights currently before the Montana Water Court in the ongoing statewide adjudication proceedings. Operating plans for water delivery are developed, and water use or other related land use problems on the projects are solved.

Administration of Project Lands and Leases

DNRC owns land surrounding state-owned reservoirs, supply canals, and water delivery canals. DNRC also assists DFWP in the operation and maintenance of 10 dams owned by DFWP. These lands are unique and are administered under a special set of statutes.

Noxious weed control is an ongoing problem at almost all of the department's projects. The six-year Noxious Weed Plans, which were developed in FY 1997, are currently being updated and renewed. All weed control costs are borne by the water user associations.

Hydropower

The Hydropower Program administers the development and operation of hydropower facilities on state-owned water projects. To date, one hydropower facility, the Broadwater Power Project near Toston, has been built. With a maximum capacity of 10 megawatts, the project began generating power in June 1989. DNRC owns and operates the facility and contracts with NorthWestern Energy to sell the energy.

Earned revenues are used to pay for rehabilitating other state-owned water projects. The main purpose of these funds is to help in the maintenance and repair of state-owned water projects, which include 19 designated high hazard dams and 250 miles of irrigation canals. Most of these large projects were completed in the 1930s and 1940s and have significant needs. In a 1980 U.S. Army Corps of Engineers' statewide inspection, many of these dams were classified as unsafe due to spillway capacities that are inadequate, according to federal guidelines.

In an average year (assuming mean runoff), the facility is capable of generating roughly 56 million kilowatt-hours of electricity and earns roughly \$3.5 million in revenue from energy and capacity sales. After debt payments and operating expenses, approximately \$1.3 million is available to rehabilitate state-owned dams. A statutory appropriation of \$500,000 per biennium is also available to fund emergency repairs and maintain an emergency repairs fund.

Hydropower earnings totaling approximately \$167,000 are used for the annual partial repayment of the no-interest loan that the State received from the Northern Cheyenne Tribe for the Tongue River Dam Rehabilitation Project. DNRC received spending authority for up to \$3.1 million of hydropower earnings for the FY 2002-2003 biennium for the rehabilitation of Bair and Nevada Creek Dams, and \$1 million for FY 2004 for the rehabilitation of Nevada Creek-Phase II.

Generally, Missouri River flows at Toston Dam from July 2002 through June 2003 were below average. Annual maintenance was performed in August 2002, requiring about 160 hours of downtime. In June 2003, due to a high snowpack and above average temperatures, the spring runoff peak was well above average, but the plant maintained operation without shutdowns because of the effectiveness of the new trash rake machine and 24-hour manned operation. For the remainder of the year, downtime was minimal. Statistics concerning the Broadwater Power Project during FY 2003 are shown in Table 34.

Table 34 Broadwater-Missouri Power Project in FY 2003		
Operating availability		98 %
Gross energy generation	46,527,891	kilowatt-hours
Gross revenue from sales		\$2,968,041
Investment income		\$51,428
Operating costs		(\$397,110)
Bond payments		(\$2,018,078)
NET REVENUE		<u>\$604,281</u>

Improvements to the PLC-based automated control system are ongoing in a continued commitment to manage reservoir and tailwater levels better. The new trash rake machine is performing exceptionally well and has increased the plant's overall efficiency. As a result, the facility is generating at a higher power level for a given river flow, thereby increasing revenues from power sales. The machine has a useful life of 20 years or more, and the department should realize a payback on its investment in 5 to 7 years.

Water Management

The Water Management Bureau (WMB) provides educational, technical, and other types of support in (1) solving statewide water resource issues and policy concerns, (2) protecting Montana's interests in regional and international river basins, and (3) helping local watershed and user groups solve water management issues and problems. WMB also provides technical support to other DNRC bureaus, the Reserved Water Rights Compact Commission, and water user groups.

Watershed Management

In FY 2003, WMB staff assisted water users in 14 watersheds. Following are descriptions of examples of WMB activities.

Big Hole River

WMB provided technical support to the Big Hole Watershed Committee. Staff gathered synoptic streamflow information for the fifth consecutive year to help committee members understand the effects that irrigation has on river flows and to monitor implementation of the local drought plan. The study is being completed in cooperation with the Montana Bureau of Mines and Geology (MBMG). Staff continue to study conveyance efficiencies in the stream reaches that are critical for grayling survival and in a number of irrigation ditches.

Bitterroot River

WMB continues to serve on the board and gives staff support to the Bitter Root Water Forum. Staff provided the forum with funds to develop and implement a drought mitigation plan on tributaries of the Bitterroot, helped the forum obtain 501(c)3 status as a tax-exempt foundation, and continued to investigate flow problems in Threemile Creek, a tributary of the Bitterroot River, to better understand water use and how to improve water use efficiency. Staff, along with BOR and DFWP, have automated a number of diversion gates, fish screens, and by-pass siphons on Skalkaho Creek. Staff are also trying to coordinate discussions and actions between the forum, Tri-State Water Quality Council, Lolo Watershed Group, and DEQ on the Bitterroot total maximum daily load (TMDL) process.

Blackfoot River

WMB helped the Blackfoot Challenge and more than 80 local irrigators implement a drought mitigation plan for the Blackfoot and Clearwater rivers in the dry summer of 2002. Staff also helped write a long-term water conservation plan. A number of stream gages were re-established and monitored throughout the year. Staff also provided technical assistance on the headwater water quality project and are assisting landowners and FWS to develop and implement water savings projects on Kleinshmidt Flats and on other basin ranchlands.

Boulder River

Working with local water users and the Boulder Watershed Group, WMB started irrigation efficiency and water supply assessments of the drainage basin. Staff established six stream-gaging stations and mapped all irrigated lands in the basin by system type, using aerial photos and GIS.

Clark Fork River

WMB worked closely with the Montana Consensus Council to implement MCA 85-2-350. Under this law, enacted in 2001, the Clark Fork River Basin Task Force is preparing a water management plan for the entire Clark Fork and Flathead basins. Staff have been assisting the task force in developing the plan by conducting relevant research and by providing flow, water use, water rights, and water law information to the task force.

WMB provided staff support to the Upper Clark Fork Steering Committee. The steering committee has been working on water problems in the upper Clark Fork above the confluence with the Blackfoot River. In addition to providing general technical support, staff continued working on dewatering, drought mitigation

actions, and Georgetown Lake levels and releases. Staff are conducting a seepage loss and conveyance efficiency study on the main irrigation ditches on Race Track Creek for local water users. WMB and the Montana Water Court have been helping the steering committee to investigate and evaluate the Montana adjudication process, enforceable decrees, and the long-term implications on future water management. WMB continued to record and prepare minutes of monthly meetings.

Flathead River

WMB served as a member of the Flathead Basin Commission. WMB continues to assist with implementation of the approved TMDL plan for Flathead Lake and is assisting new efforts for developing TMDLs for the Whitefish and Stillwater rivers. Staff also provided technical and financial assistance to implement a wetland/riparian restoration project on Ashley Creek and to conduct the Ashley Creek "Know Your Watershed" Workshop in May. WMB is also participating on the basin-wide water quantity and quality monitoring committee and is funding a number of the stream gages.

Milk River

WMB and the Glasgow Regional Office are working with BOR, local irrigation districts, and other users to solve water management and distribution concerns within the Milk River basin. A five-year grant has been received from BOR to help the eight irrigation districts (organized into three divisions) learn about water conservation practices and to assist the local irrigation districts in developing water conservation plans.

Four quarterly *Milk River Watershed* newsletters were published and mailed to more than 1,200 water users in the Milk River basin. WMB and the Glasgow Regional Office obtained the articles, and WMB staff edited, published, and mailed the newsletter.

WMB continued to provide staff support to the Milk River International Alliance, which is a grassroots organization of water users from Montana, Alberta, and Saskatchewan and local, state, and federal governmental officials. WMB provided administrative, facilitative, financial, and technical support to the group.

Missouri River

WMB continues to serve on a technical committee to assist with implementing conditions defined in PPL Montana's Federal Energy Regulatory Commission (FERC) license for the Madison and Missouri river hydropower projects.

Nevada Creek

WMB is working with local water users and the Blackfoot Challenge to begin a study of water efficiency and water quality in the watershed, including a TMDL assessment.

Ruby River

To assess dewatering problems, WMB maintains flow-rating curves current at eight streamflow sites. One of these sites has a continuous recording gage. WMB meets annually with the Ruby River Reservoir Task Force to discuss river and reservoir operations.

Shields River

WMB developed a water budget for the largest irrigation canal system in the basin and with the local water users discussed canal operations during the 2002 irrigation season and the distribution of water. Staff installed four water-measuring flumes on irrigation ditches and continue to operate river flow and canal monitoring stations with the help of the local watershed coordinator. WMB monitors flows at 14 stations, including 5 that have continuous recording instrumentation.

Sun River

WMB continued to operate and collect data from five streamflow and one canal monitoring site; gages are located on Elk Creek, Mill Coulee, and Duck Creek. A staff member was appointed chair of the Sun River Flow Committee, which will be looking at the best ways to meet water needs for all types of uses in the drainage.

Tenmile Creek

WMB continued to provide staff support and facilitation to the Upper Tenmile Watershed Steering Group. The group works on issues related to streamflows, riparian habitat, water quality, and Superfund cleanup. In 2003, WMB wrote one grant application to coordinate and complete the fifth riparian restoration project, in which more than 5,000 trees and shrubs were planted in the riparian corridor, with labor provided by the Montana Conservation Corps. To date, more than 25,000 trees and shrubs have been planted in the river corridor.

Yellowstone River

WMB continued to work with both the Governor's Upper Yellowstone River Task Force and the Yellowstone River Conservation District Council.

For the task force, WMB staff completed a geomorphic analysis of the upper Yellowstone River under contract to Park Conservation District. Final report submittal was July 15, 2003. Ongoing work continues assisting the task force, Park CD, Park County, and the City of Livingston with recommendation implementation, monitoring, and cumulative effects assessment.

Staff work for the council consisted of serving on the council's technical advisory committee responsible for scientific work plan development and providing support and assistance to the council's coordinator. Related work includes helping Dawson, Yellowstone, and Stillwater Counties develop and implement work plans for floodplain management using grants that were awarded by the 2003 Legislature.

Protection of Montana's Water

DNRC has statutory responsibility to protect Montana's water resources in interstate and international water allocation and management proceedings and decisions. Following is a description of DNRC activities during FY 2003.

Columbia River

WMB continued to provide technical information and advice on issues associated with the operation of the Columbia River basin and the effects of federal decisions within Montana.

Lower Missouri River

WMB represented Montana on the Missouri River Basin Association's technical committee that reviews and recommends options for the annual operation of the Missouri River main stem system. Staff analyzed impacts and provided comments to COE on the effects on the lower Missouri River of the proposed mini-test flow releases from Fort Peck Reservoir and other proposed changes by COE. Staff also assisted lower basin water users with the relocation of pump sites that could be impacted by high spring releases from Fort Peck Reservoir.

Milk River

WMB staff met twice with Alberta Environment, Saskatchewan Water Corporation, Environment Canada, the U.S. Geological Survey (USGS), and BOR on the operations of the Milk River and its tributaries. Issues addressed include water quality and ways to improve the accuracy of the international apportionment, specifically between the western and eastern crossing of the Milk River in Alberta. Staff also participated on the Montana/Alberta Advisory Council.

With assistance from WMB, Governor Martz asked the International Joint Commission to evaluate its 1921 Order to determine whether it is meeting the terms of the 1908 Boundary Waters Treaty for apportioning the flows of the St. Mary and Milk rivers and tributaries. WMB is working closely with the International Joint Commission, Alberta officials, local water users, and both federal governments to begin the discussions. The staff is also coordinating the State's evaluation of a storage project on the Milk River that is being proposed by Alberta.

North Fork of the Flathead River

WMB coordinated meetings between British Columbia and the Flathead Basin Commission regarding the creation of an agreement between Montana and British Columbia. Over the course of the year, the Premier of British Columbia and Governor Martz have agreed to the content of the agreement. The agreement will set up a framework to resolve conflicts and to improve cooperation on the management of resources that Montana shares with British Columbia.

Poplar River

WMB continued to coordinate with Saskatchewan Water Corporation regarding the annual release of water from Cookson Reservoir into the East Fork of the Poplar River, in accordance with the International Joint Commission's recommended apportionment. Staff worked with USGS to ensure that Montana receives its rightful share.

Yellowstone River

Working with local water users, WMB wrote and testified on House Joint Resolution 35. The resolution directs the Legislative Council to designate an interim committee to initiate a study to determine how the Yellowstone River Compact can more effectively protect Montana's water users on the four interstate tributaries of the Yellowstone that are shared with Wyoming. The resolution passed, and the staff will be assisting with the study. WMB is also assisting the Tongue and Yellowstone Canal water users by maintaining a real-time gaging station on the canal.

Protection and Use of Montana's Groundwater

This section presents examples of WMB's groundwater protection and use activities that occurred in FY 2003.

WMB continued to chair the Technical Advisory Committee for the Powder River Basin Controlled Groundwater Area in southeastern Montana. The Technical Advisory Committee oversees monitoring and the collection of baseline data as part of the controlled groundwater area. Staff also worked with a group of federal and state agencies that prepared a programmatic EIS on the potential effects of coal bed methane gas development on water quality, existing water rights, and aquifers in the basin.

WMB continued to work with the water resources regional offices in reviewing and analyzing numerous and complex groundwater right applications, water right complaints, and petitions for setting up controlled groundwater areas, and to assist with the monitoring of groundwater within the Yellowstone National Park Controlled Groundwater Area. A WMB staff person continued to chair the Yellowstone National Park Technical Oversight Committee and is a member of the Groundwater Assessment Steering Committee.

Water Resource Education

WMB provides water resource education to water users and other water interests across the state. The goal is to provide citizens with the tools and knowledge to solve their own watershed and water resource problems. WMB staff at the Montana Watercourse supervised the multiple activities of three full-time water education specialists at Montana State University: the Project WET Montana coordinator, the Montana volunteer water monitoring coordinator, and the Montana wetlands education coordinator. Specific activities in FY 2003 include the following.

Staff of the Montana Watercourse facilitated a steering committee that designed and carried out a "Know Your Watershed" Workshop for the Ashley Creek watershed. Staff also designed and carried out four wetland stewardship workshops and two wetland and riparian planning and protection workshops across the state. Staff also conducted eight WET (Water Education for Teachers) workshops for teachers designed to help them better teach students about water, rivers, streams, and Montana's water resources. Staff also conducted watershed tours in the Blackfoot and Clark Fork drainages for teachers. Watercourse staff assisted other WMB staff in conducting a water commissioner training workshop in Bozeman. Staff drafted and completed a *Wetland Planning and Protection Guide* for Montana citizens and agricultural users.

The Montana Watercourse director restructured the positions within the Montana Watercourse, hired three new staff, and raised more than \$270,000 in grant funds.

WMB staff were actively involved with the Montana Watershed Coordination Council. WMB staff also participated in a number of its work groups: the Agenda Committee, Watershed Recognition Work Group, Retreat Work Group, Water Activities Work Group, and Montana Watershed Symposium Work Group.

Improvement of Statewide Water Management

Drought Mitigation

Montana entered its fourth consecutive year of drought. WMB supported and coordinated activities of the Governor's Drought Advisory Committee, members of which are listed below. Last year, the drought committee held meetings almost monthly. The 2003 *Drought Status Report* was prepared and submitted to the governor in June. WMB supports and works closely with Lt. Governor Ohs, who is the chair of the committee. The committee is responsible for implementing the *Montana Drought Response Plan*. The 2003 *Drought Status Report* describes the potential for drought and different response actions, if appropriate, at the state and local level. Staff spent considerable time helping local water users and groups mitigate drought impacts. Staff also participated in drafting the National Drought Preparedness Act of 2003, which was introduced in Congress in July.

Montana Drought Advisory Committee	
Karl Ohs	Chair, Lt. Governor
Betsy Allen ¹	Senator Burns' Office
Wayne Berkas ¹	U.S. Geological Survey
Stan Bradshaw ¹	Trout Unlimited
Marc Bridges	Montana Department of Livestock
Jay Bodner ¹	Montana Stockgrowers Association
Sarah Carlson ¹	Montana Association of Conservation Districts
Carol Crockett	Montana Department of Commerce
Ed Diemert ¹	Montana Association of Counties
Tim Felchle ¹	U.S. Bureau of Reclamation
Larry Gruel ¹	Pennsylvania Power and Light
Roy Kaiser ¹	U.S. Natural Resources Conservation Service
Gina Loss ¹	National Weather Service
Dan McGowan	Disaster and Emergency Services
Jim Melstad	Montana Department of Environmental Quality
Mike Murphy ¹	Montana Water Resources Association
Ray Nelson ¹	Northern Rockies Fire Coordination Center
Peggy Stringer ¹	Montana Agricultural Statistics
Jack Stults	Montana Department of Natural Resources and Conservation
Kathleen Williams	Montana Department of Fish, Wildlife and Parks
Ron Zellar	Montana Department of Agriculture

1. Non-voting member

WMB prepared and distributed monthly water supply and moisture condition reports to local, state, and federal governments; statewide news media; and other interested parties. In addition, the severe drought conditions that prevailed over the state in the winter, spring, and early summer of 2003 caused the staff to continually disseminate information and news releases about drought conditions and ways to mitigate drought impacts.

Water Resource Reference Guide

WMB, in cooperation with USGS, is continuing to prepare the *Water Resource Reference Document for the Year 2000*. The document describes the changes in water use and water supply throughout the last century and during the year 2000. This document should benefit water managers, water professionals, and teachers in the 21st century.

Integration of Water Quality and Quantity

WMB continued to work on integration of water quality and quantity by reviewing nonpoint pollution discharge permits and participating in DEQ's assessment of priority streams for listing as water-quality-impaired. WMB also participates on the Water Pollution Control Advisory Board and on the Water Activities Committee, which advise DEQ on its Nonpoint Discharge Elimination System Program.

Water Commissioner Training

Staff conducted water commissioner training in Bozeman and periodically helped individual water commissioners.

Other Water Management Activities

WMB continued to assess the effects of deregulation on the operation of the Toston hydropower facility and offers for the purchase of the Power Purchase Agreement with NorthWestern Energy. Staff reviewed the feasibility of hydropower development at state-owned storage projects.

WMB completed a controversial environmental assessment on the cumulative impacts of a number of permit applications in the Smith River basin.

WMB staff continued to lay out and publish the Water Resources Division's newsletter, the *Milk River Watershed* newsletter, flyers, and other documents of the division, as well as design and update the web page for the Water Resources Division.

Water Operations

The Water Operations Bureau administers the Dam Safety, Floodplain, and Water Measurement Programs and provides staff support for the Board of Water Well Contractors.

Dam Safety Program

The primary purpose of the Dam Safety Program is to ensure that dams that have the potential to cause loss of life downstream, if they fail, are properly constructed, maintained, and operated. An operation permit is issued for high hazard dams that have been found to be safe. Currently, 88 dams in the state are permitted, high hazard dams. Four additional high hazard dams are expected to be permitted. The Dam Safety Program regulates an additional 2,871 low and significant hazard dams. These dams do not require a permit.

Permitting of High Hazard Dams

To obtain or renew an operation permit, the high hazard dam owner must review and update the dam's emergency action, operation, and maintenance procedures and have an inspection conducted by a professional engineer. Often, conditions placed on an operation permit require that certain dam deficiencies be addressed. Failure to meet the conditions of an operation permit can result in a restriction on the reservoir level and/or a fine. The Dam Safety Program issued nine operation permits in Fiscal Year 2003.

Any construction on a dam that could potentially be a threat to the dam's integrity requires a construction permit. The permit application must be accompanied by design plans and specifications that are put together by a professional engineer. The following dams had active construction permits for Fiscal Year 2003.

- South Hills Storm Water Retention Ponds (Missoula County)
- Nevada Creek Dam (Powell County)
- Bair Dam (Meagher County)
- Little Sleeping Child Creek Dam (Ravalli County)
- Lake Frances North Dam (Pondera County)
- Dry Fork Dam (Blaine County)
- Crazy Mountain Dam (Park County)

When a new dam is constructed or an existing dam repaired, the owner is required to apply for a hazard classification. A hazard classification is a determination of the potential for loss of life to occur downstream due to dam failure. In FY 2003, 12 hazard analyses were completed.

Public Awareness/Education

During this fiscal year, the Dam Safety Program sponsored a workshop for engineers and geologists in cooperation with the U. S. Bureau of Reclamation. Approximately 100 people from all parts of the state attended. The main focus was on drilling in embankment dams. The reviews were outstanding; everyone seemed to get a lot of valuable information from the presentations.

Emergency Action Plan Update and Testing

State law requires that emergency action plans (EAPs) be updated on an annual basis for all high hazard dams. In addition, tests of the plans should be completed frequently. To accomplish these goals, an emergency action plan coordinator works with dam owners to ensure that EAPs are up-to-date and regularly tested. This position is funded using only federal grant monies.

For FY 2003, 15 plans were reviewed, 5 tabletop exercises were conducted, and 14 dam owners were provided assistance with updates. Plans are under way to test several additional dam emergency action plans in Fiscal Year 2004.

Several benefits result from testing the plans. County officials learn about the intricacies of dams and develop a working relationship with dam owners. Testing the plan forces the dam owner to evaluate the adequacy of emergency repair materials, examine access and evacuation routes to and from the dam, and think about potential downstream hazards. The public benefits by having increased owner awareness and well-developed emergency plans.

Emergency Action Plan Evacuation Maps

Most of the inundation maps contained in EAPs for high hazard dams are copies of USGS quadrangle maps. Some of these maps are hard to read. In an effort to improve the quality of the maps, the Dam Safety Program is in the process of taking aerial photos. Aerial photos provide much better detail. They are also easier for county officials to use because they can recognize landmarks on an aerial photo more readily than on a topographic map.

The objective of the program is to revise EAP maps, using aerial photography as an aid to illustrate and identify downstream hazards. Four inundation areas were flown in FY 2003. Plans are in place to complete five additional areas in September 2003, depending on the availability of pilots and the severity of the fire season. The goal is to eventually put all of the inundation maps for the state's high hazard dams that DNRC regulates in more usable digital format. This program is in its fourth year and will be continued indefinitely.

Summer Engineering Project Aides

During the summer, the water resources regional offices located throughout the state are responsible for maintenance inspections, measurement of monitoring devices, and downstream hazard evaluations. Six students were hired from May through August 2002 to assist the regional engineers. All salaries and operating expenses were funded with federal grants. These students worked closely with the regional engineers, primarily helping dam owners to conduct their annual owners' inspections. The students also evaluated drain flows and piezometric data on several state-owned dams and helped collect survey data.

Earthquake Ground-Shaking Map Development

Earthquakes are capable of causing great damage to dams. Montana is one of the most seismically active states in the country and potentially could have a large earthquake of magnitude 7 or greater. Therefore, it is necessary to evaluate dams to see how resistant they are to damage and failure from ground shaking. In order to do this, one must have an idea of what magnitude earthquake could occur in the area near the dam.

To provide engineers with accurate data to assess the ground-shaking potential near a dam or other structure, DNRC requested funding from the Federal Emergency Management Agency (FEMA) to develop detailed ground-shaking maps specific to Montana. DNRC then contracted with a corporation that is one of the world leaders in seismic hazard analysis to develop the maps. Assisting with the project are representatives from the Montana Bureau of Mines and Geology, Montana Tech of the University of Montana, the U.S. Bureau of Reclamation, Montana State University, and FEMA.

It is anticipated that the maps will be made available in the fall of 2003. A training seminar will be conducted on proper use of the maps. The maps will be of value for analyzing not only dams, but also buildings, landfills, interstate bridges, and any other structure that could be adversely affected by an earthquake.

Board of Water Well Contractors

The Board of Water Well Contractors is responsible for licensing water well drillers, water well contractors, and monitoring well constructors. The board, which is attached to DNRC for administrative purposes, establishes minimum water well and monitoring well construction standards and enforcement and training procedures. Composed of five members, the board consists of one technical advisor/hydrogeologist appointed by MBMG, two licensed Montana water well contractors appointed by the governor, one member appointed by the DNRC director, and one member appointed by the DEQ director. Each member serves a three-year term. Current board members are:

Pat Byrne, Chair Great Falls Water Well Contractor	
Laurence Siroky, Vice-Chair Helena DNRC	Robert N. Bergantino Butte MBMG
Eric Regensburger Helena DEQ	Kevin Haggerty Bozeman Water Well Contractor

Licensing

During FY 2003, 280 people were licensed in three categories: water well contractors, monitoring well constructors, and water well drillers. Twenty-four of these were new licensees. Eleven former licensees did not renew their licenses.

Complaints and Investigations

This year, 29 complaints were received out of 200 initial inquiries. Fourteen of the complaints were investigated for violations. Five faulty wells were repaired by the licensees without board action. One contractor's bond was used to repair a faulty well.

Public Awareness/Education

The Board of Water Well Contractors and the Montana Environmental Training Center held 12 continuing education classes and approved three programs by suppliers and manufacturers for continuing education credit. The board conducted one class for drillers.

A newsletter, *Well Developments*, is published and distributed to license holders and other interested persons.

Floodplain Management

The Floodplain Management Section is responsible for the oversight of 125 locally administered floodplain management programs throughout Montana.

The primary goal of the program is to reduce the loss of life and structural property through wise floodplain development. The secondary goals are to reduce the loss of functional floodplains and reduce the amount of erosion of stream banks due to unwise floodplain development. Budget cuts once again have reduced the staff of the floodplain program, resulting in reduced ability to assist local governments in managing a very complex program that benefits all citizens of the state.

Flood Mitigation Assistance Program

The primary purpose of this program is to relocate structures out of the 100-year floodplain. The secondary purpose is to elevate structures to 2 feet above the base flood elevation. Structural projects will be greatly limited based upon the type of project, location, and a cost/benefit comparison with other alternatives. In FY 2003, the City of Lewistown and Sweet Grass County completed flood mitigation plans in order to be eligible to construct flood mitigation measures to reduce flood insurance claims.

State Floodplain and Community Assistance Program

General technical and engineering assistance was given to local and state governments, private property owners, and engineering consulting firms. During FY 2003, the Floodplain Management Program sent out approximately 165 written responses to floodplain issues and concerns. Also, approximately 1,135 phone contacts and 1,725 e-mails were responded to during the fiscal year. Of that total, 45 percent provided technical assistance, and 6 percent required follow-up. Numerous violations have been addressed this past year, and most were remedied without legal activity.

Floodplain Study Program

Floodplain management studies are ongoing in Gallatin, Lewis and Clark, Missoula, and Yellowstone Counties. Also, the floodplain program is working closely with the U.S. Army Corps of Engineers on flood studies in Glendive, Miles City, and Libby.

The Floodplain Management Program signed an agreement with FEMA to become a "Cooperating Technical Partner" for FY 2003 and will receive approximately \$45,000 to conduct studies in Gallatin County.

FEMA initiated a new program, the Map Modernization Implementation Program, in Montana last year. The first step of the program was to collect a detailed inventory of all flood maps in the state and prioritize them with regard to the need for restudy. Also, high priority, unmapped floodplains were identified. A statewide mapping plan will be developed, which will be used to request funding from FEMA to conduct flood studies throughout the state. FEMA is hopeful that Congress will pass a bill that would provide up to \$150 million nationwide for the national mapping initiative.

Public Awareness/Education

Staff provided support to the Upper Yellowstone Task Force. Detailed floodplain maps of the Yellowstone River for the City of Livingston were updated, and new maps were developed for the Yellowstone River from Mission Creek to Gardiner.

The Association of Montana Floodplain Managers held its fourth annual conference in Lewistown, attended by approximately 55 people. The conference was a success and included people from numerous professions. The DNRC program manager was elected executive director of the association for the next year.

Water Measurement Program

The purpose of the Water Measurement Program is to provide technical information and assistance in the measurement of surface water diversions. The program focuses on streams where dewatering causes conflicts between water users or impacts resources. Program staff continue to investigate streams for program inclusion. The program also analyzes the effectiveness of drought response actions and presents the results to various watershed groups and organizations.

Big Hole River

The Water Measurement Program continues to represent DNRC at watershed committee meetings and to provide snowpack and streamflow data to the committee. The Drought Management Plan devised by the committee will be implemented again this year because of low flows.

Burnt Fork

The Burnt Fork is a Bitterroot River tributary near Stevensville. The Water Measurement Program was contacted this spring to develop a new rating table for the Burnt Fork gaging station. This was last done in 1986, and the old table had considerable error. As of July, a new rating table has been developed and is currently in use by the various water user groups on the Burnt Fork.

Georgetown Lake

The Water Measurement Program has been working with various groups that have conflicting interests in Georgetown Lake water and lake management. The program has modified the Georgetown Lake model so that Granite County may easily use it to operate the dam more efficiently. The program has installed continuous recorders on the lake and on major tributaries, continues to provide model projections to Granite County and to homeowners on the lake, and continues to research the hydrology of the basin so that the lake may be managed more objectively.

Jefferson River

The Water Measurement Program continues to work with the Jefferson River Watershed Council. The Water Measurement Program and DFWP drafted a Drought Management Plan that was used during the last three summers and will likely be used again this summer.

The Water Measurement Program continues to analyze and disperse the information from recording stream gages that it installed at the Waterloo Bridge (Jefferson River), High Road Bridge (Big Hole River), and mouth of the Beaverhead River. The program continues to measure irrigation diversions and is conducting a seepage study of the Parrot Canal and Creeklyn Ditch, which serve the largest, most senior water users in the system.

Program staff continue to take weekly readings of river gages and irrigation diversions and present them at weekly drought response meetings of the major water users.

Musselshell River

Installation of measuring devices continues on Musselshell River diversions. Several water development grant applications were received requesting partial reimbursement for installation of headgates and measuring devices. The Lewistown Regional Office is assisting with these efforts.

Rock Creek

Rock Creek is a tributary to the Big Hole River near Glen. There is considerable conflict between users during low water years. The Water Measurement Program has responded to this situation by installing and rating measuring devices on irrigation diversions and on Rock Creek at its mouth and at its entrance to the valley. Releases from the upper reservoir are monitored so that water may be more effectively allocated.

Water Rights

The mission of the Water Rights Bureau is to ensure the orderly appropriation and beneficial use of Montana's waters. The two main programs are (1) adjudication, where the bureau assists the Water Court in identifying and evaluating pre-1973 water uses, and (2) new appropriations, which involve the administration and regulation of post-1973 water rights in Montana. In addition to operating the two programs, the Water Rights Bureau is directed by the Montana Constitution to maintain a centralized water right record system.

Water Right Records

The two types of records most accessed by the public and the staff are in microfiche and electronic formats. With the water right database accessible on the Internet, the electronic records are becoming the most popular.

Efforts continue to enhance the wide variety of water right information, forms, and data now available on the Internet at:

www.dnrc.state.mt.us/wrd/home.htm

For geographic representation of water rights data, go to the Natural Resource Information System (NRIS) site at:

www.nris.state.mt.us/apps/dnrc2002/waterrightmain.asp

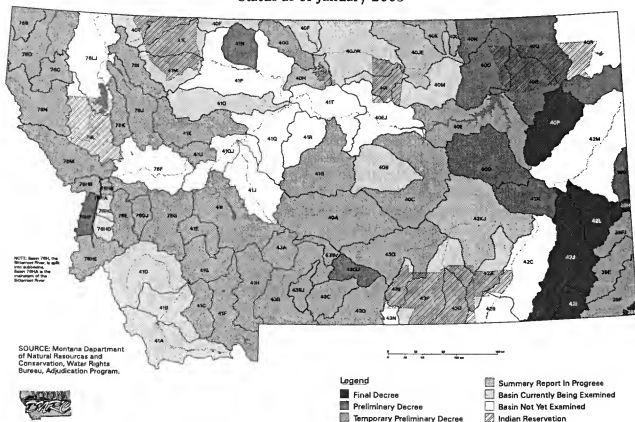
The redesign of the water rights database will improve flexibility in information gathering and report generation, increase mapping capabilities, and improve customer access and service.

Adjudication

During FY 2003, 2,241 claims were examined in five of the eight Water Resources Division regional offices. Staff in these offices also provided post-decree assistance to the Water Court. Regional office staff joined the court in working with hundreds of citizens to resolve issues and disputes on pre-1973 water use claims. Central and regional office staff were also involved in issuing DNRC's summary report to the Water Court for the Yellowstone River between the Big Horn River and the Tongue River basin (42KJ).

Figure 32 shows the status of the adjudication in Montana's basins. The Water Court issued a Preliminary Decree in January 2003 for Big Sandy Creek (basin 40H).

Figure 32
Montana General Adjudication
Status as of January 2003



Staff from the Central office, Bozeman Regional Office, Water Court, and 18th Judicial District Court worked together to enforce the Water Court's West Gallatin River Temporary Preliminary Decree (basin 41H) and a portion of the Water Court's Temporary Preliminary Decree on Hyalite and South Cottonwood creeks. Staff from the Central Office, Lewistown Regional Office, Water Court, and 14th Judicial District Court worked together to enforce the Water Court's Temporary Preliminary Decrees (basins 40A & 40C) on over 200 miles of the Musselshell River. Staff from the Central Office, Billings Regional Office, Water Court, and 6th Judicial District Court worked together to enforce the Water Court's Temporary Preliminary Decree on Sweet Grass and Cayuse creeks (basin 43BV).

New Appropriations

Applications for various types of water rights are received each year. Table 35 shows the number and types of applications and notices received and processed during FY 2003. These water right applications vary in complexity depending on each region's water supply, area-specific competition for water, and the specific project request. Staff in the division's eight regional offices process these applications.

	Received	Processed
Permits	294	212
Changes	117	96
Groundwater certificates	2,758	2,561
Water right ownership updates	4,294	4,980
Exempt water rights	251	163
Extensions	58	56
Stockwater permits	139	137
Project completion certifications	101	947

The backlog on these applications, and the time it takes to process them, are growing in most regions of Montana. The number of ownership updates and groundwater certificates has increased in recent years because of improved compliance with the law, which requires that ownership updates be part of the realty transfer certificates that must be filed with the county for every realty transfer in the state. The level of scrutiny given to permit and change applications has increased due to greater public concerns for environmental review, basin closures, groundwater-surface water connectivity, drought, the complexity of dealing with limits to water availability, and the need to avoid adverse effects. At the same time, the number of people and amount of funding available to work on these applications have remained stable or decreased because of hiring freezes and other fiscal considerations.

When applicants and objectors are unable to settle their differences, the file moves into the hearings process. During FY 2003, 26 hearings were held. In general, permit and change applications continue to be more complex and contentious. Hearings are now being scheduled at least a year from the receipt of objections. The Water Rights Bureau is examining ways to contract with private entities to provide additional hearings services, if an applicant is willing to cover the expense.

Two controlled groundwater areas were established, one in the North Hills of the Helena Valley, and the other at the Somers Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site. Petitions are pending at several additional sites across Montana.

Regional Offices

The primary function of the division's eight regional offices is to work directly with the public in implementing programs for which the division is responsible. The regional offices play a large role in the accomplishments already discussed in this report concerning the division's programs. Additional special projects are highlighted here.

Billings

The prospect for coal bed methane development has brought forth a great deal of concern for and interest in water rights in southeastern Montana. The Billings Regional Office is working cooperatively with groups, corporations, and individuals to provide education on water right laws and their relationship to the methane development process. The office has worked on permitting beneficial uses for methane development water, investigated water use complaints, and evaluated the safety of dams for storing coal bed methane waters. The office will continue to work with water users during this period of uncertainty and change.

Flowing near Big Timber, Sweet Grass Creek provides water for thousands of acres of irrigated farmland. Area farmers and ranchers had become increasingly frustrated with the lack of organized distribution of this important resource. The Billings Regional Office responded by assisting the water users and the Water Court in instituting and training a water commissioner, installing water measurement devices, mapping diversion points, resolving outstanding water right issues, and developing a decree enforceable by the courts. While shortages continue, citizens are reassured that water is being distributed as prescribed by law.

Bozeman

The issue of enforcement of pond water rights is an increasing concern with area water users. Several high-capacity well applications in the West Gallatin River alluvium have stimulated interest in the topic of surface water/groundwater interaction. The Bozeman office is providing support to the District Court and the Water Court for water right enforcement projects on the West Gallatin River, Middle Creek, and South Cottonwood Creek.

Glasgow

Glasgow Regional Office staff provided expertise to the development and implementation of the new Oracle-based Water Rights Database Project. Staff helped five eastern Montana conservation districts to develop and process changes to their reserved water rights. Under a BOR and DNRC cooperative agreement, Glasgow staff continue to help the Milk River Project irrigation districts and the Joint Board of Control with water conservation planning as part of a joint effort. Increased water measurement under the water conservation plans was instrumental in providing an equitable distribution and allocation of water during recent drought conditions. Glasgow staff have provided technical and planning assistance on the feasibility study of the North Central Montana Regional Water System, and to all basin water users, for long-term, broad-based solutions to frequent water shortages and failing infrastructure.

Havre

Havre Regional Office staff continue providing considerable cooperative technical assistance to the Milk River Technical Working Group, Eastern Tributaries Working Group, and Milk River Joint Board of Control for the eight irrigation districts that make up the Milk River Irrigation Project. In cooperation with county commissioners, conservation districts, BOR, USGS, Canadian Saskatchewan Water, the Prairie Farm Rehabilitation Administration, Water Survey Canada, and all water users, the Havre Regional Office staff worked effectively to reduce waste and improve equitable water delivery to mitigate the negative effects of the drought. Havre staff have contributed substantially to reducing the backlog of verifying complete water use permits and change authorizations.

Helena

The Helena Regional Office is assisting with the spillway construction oversight at Nevada Creek Dam. During the spring, the bid was let, and pre-construction meetings were held with the contractor. Construction has just begun, and scheduling and material and procedure submittals are the first priorities. The majority of the construction will occur in the fall and winter of 2003.

A DNRC Order was issued on October 11, 2002, designating the 52-square-mile North Hills Temporary Controlled Groundwater Area (NHCGA) in the north Helena valley. The Helena Regional Office has received 54 permit applications for new wells and 14 change applications for replacement wells since the effective date of the order. Staff issued 50 licenses to drill and test. The Helena office disseminates application, well log, and water quality sample information to the Lewis and Clark County Water Quality Protection District and MBMG for inclusion in the North Hills database. Assistance is also provided in gathering well cutting samples and static water levels for the NHCGA study.

Kalispell

The DNRC Reserved Water Rights Compact Commission continues to work on the negotiation of the Confederated Salish and Kootenai Tribes' water right. The Kalispell office is attending the negotiating sessions and participates in the Administration Work Group. The compact commission and the Tribes have also initiated a new project to have the department begin examination of claims in the Jocko River drainage basin.

The Kalispell office has begun to see an increase in the number of new appropriations for large groundwater uses. Many of them are in direct proportion to the increase in growth in Flathead County. Several applications have also been generated as a result of a cooperative effort with the local DEQ public water supply section to identify existing subdivisions that were built before water rights were secured.

Lewistown

The Lewistown Regional Office continued providing technical assistance toward administration of the Musselshell River Enforcement Project, the largest district-court-supervised enforcement project of its kind in Montana. Hundreds of water users; approximately 60,000 irrigated acres; and more than 200 miles of river are involved in the enforcement area. Staff assisted water users, water

commissioners, the Water Court, and others with hydrological evaluation, water law, project mapping, records research, measuring device selection and location, and funding assistance.

The regional office provided construction oversight and concrete testing services on the final phase of rehabilitation of the spillway at Bair Reservoir.

Missoula

In spite of being short-staffed, the Missoula Regional Office made considerable progress in reducing the backlog of water right applications.

Contracts for delivery of water from Painted Rocks Reservoir on the West Fork of the Bitterroot River expire on September 30, 2004. Staff began negotiations for new contracts with the Painted Rocks Water Users Association and DFWP. Painted Rocks provides water essential to irrigators and for instream flow for fisheries and recreation.

Staff continued to refine GIS applications to assist in the adjudication of existing water rights in the Bitterroot and Blackfoot basins and for use with new appropriations.

Staff also provided water right orientation training sessions for realtors, consultants, lawyers, and others, with an emphasis on the acquisition of water rights information from the Internet.

APPENDIX A

**FUNDING INFORMATION CONCERNING
THE RESOURCE INDEMNITY TAX AND
THE COAL SEVERANCE TAX**

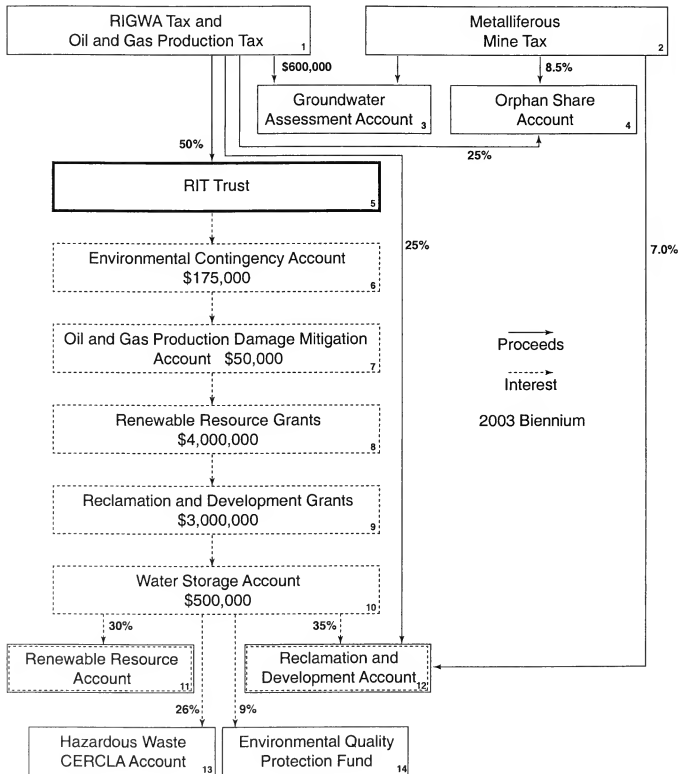
APPENDIX A

FUNDING INFORMATION CONCERNING THE RESOURCE INDEMNITY TAX AND THE COAL SEVERANCE TAX

Resource Indemnity Tax

1. The **Resource Indemnity Groundwater Assessment Tax (RIGWA)** is a 0.5 percent tax of the gross value of the product of certain mineral mining (see Figure A-1). The tax was originally created in 1973. Mineral production, including coal, small metal mine production, talc, vermiculite, limestone, and other "*nonrenewable merchantable products extracted from the surface or subsurface of the state of Montana*" (MCA 15-38-103), is taxed. In addition to RIGWA proceeds, an 8.6 percent share of the **Oil and Gas Production Tax** is distributed to the **Resource Indemnity Tax Trust (RIT Trust)** and its associated accounts (MCA 15-36-324).
2. The **Metalliferous Mine Tax** is a tax on "*the annual gross value of product*" of all metal mine production or precious or semiprecious gem or stone production (MCA 15-37-101 et seq.). The tax rate is 1.81 percent of the annual gross value over \$250,000 for concentrate shipped to a smelter, mill, or reduction work (MCA 15-37-103). For gold, silver, or any platinum-group metal that is dore, bullion, or matte and that is shipped to a refinery, the tax rate is 1.6 percent of the annual gross value over \$250,000 (MCA 15-37-103).
3. The **Groundwater Assessment Account** was created in 1991 (MCA 85-2-901 et seq.). The purpose of the account is to fund a statewide Groundwater Assessment Program that will monitor the quantity and quality of the state's groundwater. The program is staffed by the Montana Bureau of Mines and Geology in Butte. An oversight committee reviews all expenditures, approves monitoring sites, prioritizes areas, coordinates information, and evaluates reports.
4. The **Orphan Share Account** was created in 1997 (MCA 75-10-743). The purpose of this fund is to provide funding for remediation and reclamation projects where the party responsible for the contamination no longer exists. The Montana Department of Environmental Quality is charged with administering the account. For projects where there are multiple parties, the state will participate in the negotiations to ensure that a fair allocation of the responsibilities for cleanup is made. In these cases a lead party will be responsible for proceeding with cleanup. All parties will participate financially, to the extent that they were responsible for the contamination. The portion of the contamination caused by parties that no longer exist is called the "*orphan share*," and these costs may be reimbursed if funds are available within the Orphan Share Account. If sufficient funds are not immediately available, reimbursements will be made over time as funds are deposited into the account.
5. The **Resource Indemnity Tax Trust (RIT Trust)** was created in 1973. No funds that are deposited into the trust can be spent until the total deposits exceed \$100 million. This protection is provided in Article IX, Section 2 of

Figure A-1
Allocation of Resource Indemnity Tax
Proceeds and Interest



the Montana Constitution. Trust fund proceeds are invested, and the interest earnings are distributed to several natural resource programs.

6. **The Environmental Contingency Account** was created in 1985 (MCA 75-1-1101 et seq.). The governor has the authority to approve expenditures from this account to meet unanticipated public needs. Specifically, the statute limits projects to the following objectives: (1) to support renewable resource development projects in communities that face an emergency or imminent need for the services or to prevent the failure of a project; (2) to preserve vegetation, water, soil, fish, wildlife, or other renewable resources from an imminent physical threat or during an emergency, not including natural disasters or fire; (3) to respond to an emergency or imminent threat to persons, property, or the environment caused by mineral development; and (4) to fund the Environmental Quality Protection Fund. Each biennium \$175,000 of the RIT Trust interest earnings is allocated to this account. The balance in this account cannot exceed \$750,000.
7. **The Oil and Gas Production Damage Mitigation Account** was created in 1989 (MCA 85-2-161). The Board of Oil and Gas Conservation may authorize payment for the cost of properly plugging a well and reclaiming and/or restoring a drill site or other drilling or producing area damaged by oil and gas operations. The site must be abandoned, and the responsible person either cannot be identified or refuses to correct the problem. Each biennium \$50,000 of the RIT Trust interest earnings is allocated to this account. The balance in this account cannot exceed \$200,000.
8. **Renewable Resource Grants** receive \$2 million in RIT Trust interest earnings per year, or \$4 million for the biennium (MCA 85-1-604). The Renewable Resource Grant and Loan Program was created in 1993 by combining the Renewable Resource Development Program and the Water Development Program. The purpose of the grant program is to fund projects that conserve, develop, manage, and preserve water and other renewable resources. Projects include construction and rehabilitation of existing water supply systems and wastewater systems, educational efforts, feasibility studies, development of water storage, enhancement of renewable resources including recreation, reduction and advancement of agricultural chemical use, and improvement of water use efficiency (MCA 85-1-602).
9. **The Reclamation and Development Grants Program** was established in 1987. This program receives \$1.5 million in RIT Trust interest earnings per year, or \$3 million per biennium. The purposes of the program are: (1) to repair, reclaim, and mitigate environmental damage to public resources from nonrenewable resource extraction; and (2) to develop and ensure the quality of public resources for the benefit of all Montanans (MCA 90-2-1101). Projects have included plugging abandoned oil and gas wells, reclaiming mine sites, controlling nonpoint source pollution, researching new technologies for mine waste cleanup, conducting groundwater studies to determine the extent of contamination, and cleaning up pesticide contamination.
10. **The Water Storage Account** was established in 1991 (MCA 85-1-701 et seq.). The purpose of the account is to provide funding for projects that rehabilitate existing water storage facilities or develop new ones. Priority is given to high

hazard, unsafe dams. Each biennium \$500,000 of RIT Trust interest earnings is deposited into this account.

11. **The Renewable Resource Grant and Loan Program State Special Revenue Account** receives 30 percent of the remaining interest earnings from the RIT Trust (MCA 85-1-601). This special revenue account also receives revenue from excess deposits in the Renewable Resource Debt Service Account and other administrative fees. The revenues are used to fund natural resource agency projects and administration, including the administration of the Renewable Resource Grant and Loan Program, the Flathead Basin Commission, the Water Court, MSU Northern, and the Montana State Library.
12. **The Reclamation and Development Grants Program State Special Revenue Account** receives 35 percent of the remaining RIT Trust interest earnings, 25 percent of the RIGWA Tax proceeds, and 7 percent of the Metalliferous Mine Tax (MCA 90-2-1101). The revenues are used to fund projects and administration of natural resource agencies, including the administration of the Reclamation and Development Grants Program, Montana State Library, Department of Environmental Quality, and Environmental Quality Council.
13. **The Hazardous Waste CERCLA Account** is administered by the Department of Environmental Quality (MCA 75-10-601 et seq.). CERCLA stands for the federal Comprehensive Environmental Response, Compensation, and Liability Act. This account receives 26 percent of the remaining RIT Trust interest earnings. The account was established in 1983 and is to be used to make payments on CERCLA bonds, implement the Montana Hazardous Waste Act, and provide assistance in remedial actions under CERCLA.
14. **The Environmental Quality Protection Fund** was established in 1985 and is administered by the Department of Environmental Quality (MCA 75-10-704 et seq.). This account receives 9 percent of the remaining RIT Trust interest earnings. The purpose of this account is to provide funding for remedial actions taken by the department in response to a release of hazardous or deleterious substances.

Coal Severance Tax

Within 30 days of the end of each calendar quarter, coal severance taxes are paid to the state, and 50 percent of these are deposited into the **Coal Severance Tax Trust Fund** by the Department of Revenue (see Figure A-2 and Table A-1). Six accounts are established within the trust: (1) the **Coal Severance Tax Bond Fund**, (2) the **School Bond Contingency Loan Fund**, (3) the **Treasure State Endowment Regional Water System Fund**, (4) the **Treasure State Endowment Fund**, (5) the **Coal Severance Tax Permanent Fund**, and (6) the **Coal Severance Tax Income Fund** (see Figure A-3).

1. Coal tax revenues that flow into the trust are initially deposited into the **Coal Severance Tax Bond Fund** (Bond Fund) and made available for payment of debt service on Coal Severance Tax Bonds (see footnotes 7, 8, and 9). The Department of Natural Resources and Conservation (DNRC) informs the Department of Revenue, during the first quarter of each state fiscal year, of the amount necessary to meet all principal and interest payments on bonds pay-

able from the Bond Fund for the next year (two semiannual payments). The Department of Revenue retains that amount in the Bond Fund.

2. The January 1992 Special Legislative Session passed an act creating the Coal Severance Tax School Bond Contingency Loan Fund (Contingency Loan Fund). A total of \$25 million of school bonds was authorized to be issued and secured by this fund. For as long as there are any outstanding school district bonds secured by the Contingency Loan Fund, an amount equal to the next 12 months of principal and interest payments due on any school bonds is retained in the Contingency Loan Fund. DNRC provides written notice to the Department of Revenue in January of each year of the amount needed to secure school district bonds.

Figure A-2
Allocation of Coal Severance Tax

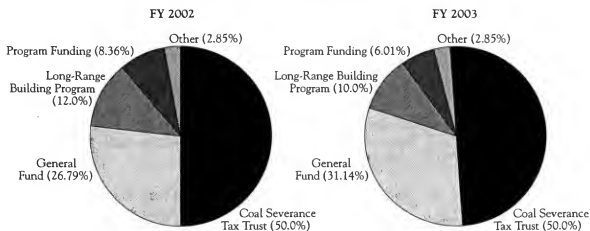


Table A-1
Allocation of Coal Severance Tax

	FY 2002		FY 2003	
	Allocation	(\$1,000)	Allocation	(\$1,000)
Coal Severance Tax Collections		\$31,614		\$30,936
Coal Severance Tax Trust Fund	50.00%	\$15,807	50.00%	\$15,468
General Fund	26.79%	8,469	31.14%	9,633
Long-Range Building Program	12.00%	3,794	10.00%	3,094
Program Funding	8.36%	2,643	6.01%	1,859
Other				
Parks Acquisition and Management Trust	1.27%	401	1.27%	393
Renewable Resource Loan Debt Service	0.95%	301	0.95%	294
Cultural and Aesthetic Trust and Capitol Art	0.63%	199	0.63%	195

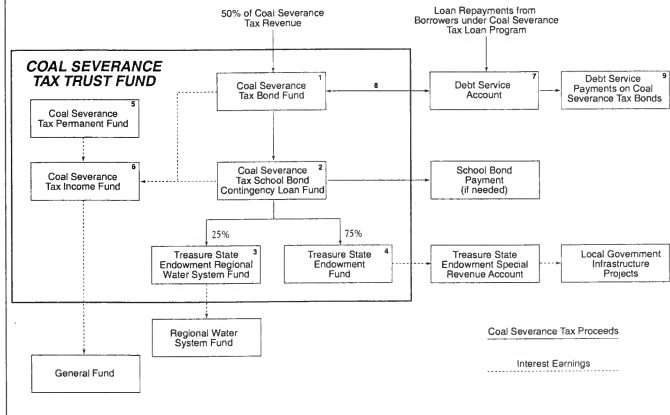
3. The **Treasure State Endowment Regional Water System Fund** was established to provide state funding for regional water systems. Initially, the North Central Rocky Boy's Regional Water System and the Dry Prairie Fort Peck Regional Water System were authorized. During the first quarter of each state fiscal year, 25 percent of the amount in excess of what is retained in the Bond Fund and in the Contingency Loan Fund is deposited into the Regional Water System Fund.
4. The **Treasure State Endowment Fund (Endowment Fund)** was established when voters approved the ballot measure on June 2, 1992. During the first quarter of each state fiscal year, 75 percent of the amount in excess of what is retained in the Bond Fund and in the Contingency Loan Fund is deposited into the Endowment Fund. The Department of Commerce notifies the Department of Revenue when interest earnings are needed to fund local infrastructure projects. The Department of Revenue then transfers the interest earnings from the Endowment Fund into the **Treasure State Endowment Special Revenue Account (Revenue Account)**. The Department of Commerce then approves the disbursement of funds to authorized local governments. Interest earnings not transferred to the Revenue Account for projects are retained in the Endowment Fund.
5. The **Coal Severance Tax Permanent Fund (Permanent Fund)** receives no new tax proceeds. The fund balance within the trust is invested by the Board of Investments. The earnings from the Permanent Fund are deposited into the General Fund. State law states that up to 25 percent of the Permanent Fund can be invested in the Montana economy.
6. Investment income on the deposits in the **Bond Fund**, the **Contingency Loan Fund**, and the **Permanent Fund** is periodically transferred into the **Coal Severance Tax Income Fund**. The entire balance in the Income Fund is transferred into the **General Fund** on a monthly basis.
7. Under the Coal Severance Tax Loan Program, the state sells coal severance tax bonds and loans the proceeds to local governments for various infrastructure projects. The borrowers make semiannual or annual loan payments, which upon receipt are credited to a **Debt Service Account**. The terms of the loans vary, but generally involve an interest rate subsidy for the first five years of the loan followed by a direct pass-through of the interest rate on the state bonds for the remaining life of the loan. The loan program and debt service accounts are administered by DNRC.
8. Debt service payments on the bonds are due each June 1 and December 1. To the extent that funds on hand in the Debt Service Account are insufficient to pay principal and interest on the bonds when due, funds are transferred into the Debt Service Account from the Bond Fund.

On January 1 of each year, funds are transferred into the Debt Service Account from the Bond Fund to the extent necessary to cause the balance in the Debt Service Account to equal one-twelfth of the next two ensuing semi-annual debt service payments. DNRC provides written notice to the Department of Revenue if funds are needed to pay debt service or to make the required transfer on January 1. On January 1 of each year, DNRC also sweeps

the Debt Service Account of funds in excess of one-twelfth of the next two ensuing semiannual debt service payments. The excess is returned to the Bond Fund in repayment of borrowed money, if necessary, or deposited into the Renewable Resource Grant and Loan Program Special Revenue Account.

9. On each June 1 and December 1, the state pays debt service on the bonds from amounts on hand in the Debt Service Account. Payments are made by DNRC.

Figure A-3
Coal Severance Tax Trust Fund
Flow of Funds Summary



ABBREVIATIONS

AFY	acre-feet per year	MBMG	Montana Bureau of Mines and Geology
AUM	animal unit month	MCA	Montana Code Annotated
BIA	Bureau of Indian Affairs, U.S. Department of the Interior	MCF	thousand cubic feet
BLM	Bureau of Land Management, U.S. Department of the Interior	MEPA	Montana Environmental Policy Act
BMP	best management practice	MSCA	Montana Salinity Control Association
BOGCC	Board of Oil and Gas Conservation	NACD	National Association of Conservation Districts
BOR	Bureau of Reclamation, U.S. Department of the Interior	NFP	National Fire Plan
BRWA	Boulder River Watershed Association	NHCGA	North Hills Temporary Controlled Groundwater Area
CARD	Conservation and Resource Development Division	NPS	nonpoint source
CD	conservation district	NRCS	Natural Resources Conservation Service, U.S. Department of Agriculture
CDB	Conservation Districts Bureau	NRIS	Natural Resource Information System
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	RCAC	Resource Conservation Advisory Council
cfs	cubic feet per second	RC&D	resource conservation and development
COE	Corps of Engineers, U.S. Army	RDB	Resource Development Bureau
CRP	Conservation Reserve Program	RDGP	Reclamation and Development Grants Program
CSD	Centralized Services Division	RFA	rural fire assistance
DEQ	Montana Department of Environmental Quality	RFP	Request for Proposal
DFWP	Montana Department of Fish, Wildlife and Parks	RIGWA	Resource Indemnity Groundwater Assessment Tax
DNRC	Montana Department of Natural Resources and Conservation	RIT	Resource Indemnity Tax
DWSRF	Drinking Water State Revolving Fund	RMC	Rocky Mountain Chapter
EA	environmental assessment	RRGLP	Renewable Resource Grant and Loan Program
EAP	emergency action plan	RWRCC	Reserved Water Rights Compact Commission
EIS	environmental impact statement	SABHRS	Statewide Accounting, Budgeting, and Human Resources System
EPA	U.S. Environmental Protection Agency	SB	Senate Bill
FEMA	Federal Emergency Management Agency	SFLMP	<i>State Forest Land Management Plan</i>
FER	final engineering report	SMZ	streamside management zone
FERC	Federal Energy Regulatory Commission	SRF	State Revolving Fund
FONSI	finding of no significant impact	SUPJV	Seven-Up Pete Joint Venture
FWS	Fish and Wildlife Service, U.S. Department of the Interior	TLMD	Trust Land Management Division
FY	fiscal year	TMDL	total maximum daily load
GASB	Governmental Accounting Standards Board	TSEP	Treasure State Endowment Program
GIS	geographic information system	UIC	underground injection control
GPS	global positioning system	USDA	U.S. Department of Agriculture
HB	House Bill	USFS	Forest Service, U.S. Department of Agriculture
HRA	Hazard Reduction Agreement	USGS	Geological Survey, U.S. Department of the Interior
ISA	International Society of Arboriculture	VFA	volunteer fire assistance
ITB	Information Technology Bureau	WMB	Water Management Bureau
MACD	Montana Association of Conservation Districts	WPAG	Watershed Planning and Assistance Grant Program
		WPCSRF	Water Pollution Control State Revolving Fund
		WRD	Water Resources Division

Cover photos

by DNRC staff, including (clockwise, from upper left corner)
Bill Greiman, Gary Klotz, Dave Mousel, Bob Fischer,
Dave Amman, and Dan Bushnell (two photos)

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MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1625 Eleventh Avenue P O Box 201601 Helena, MT 59620-1601 www.dnrc.state.mt.us